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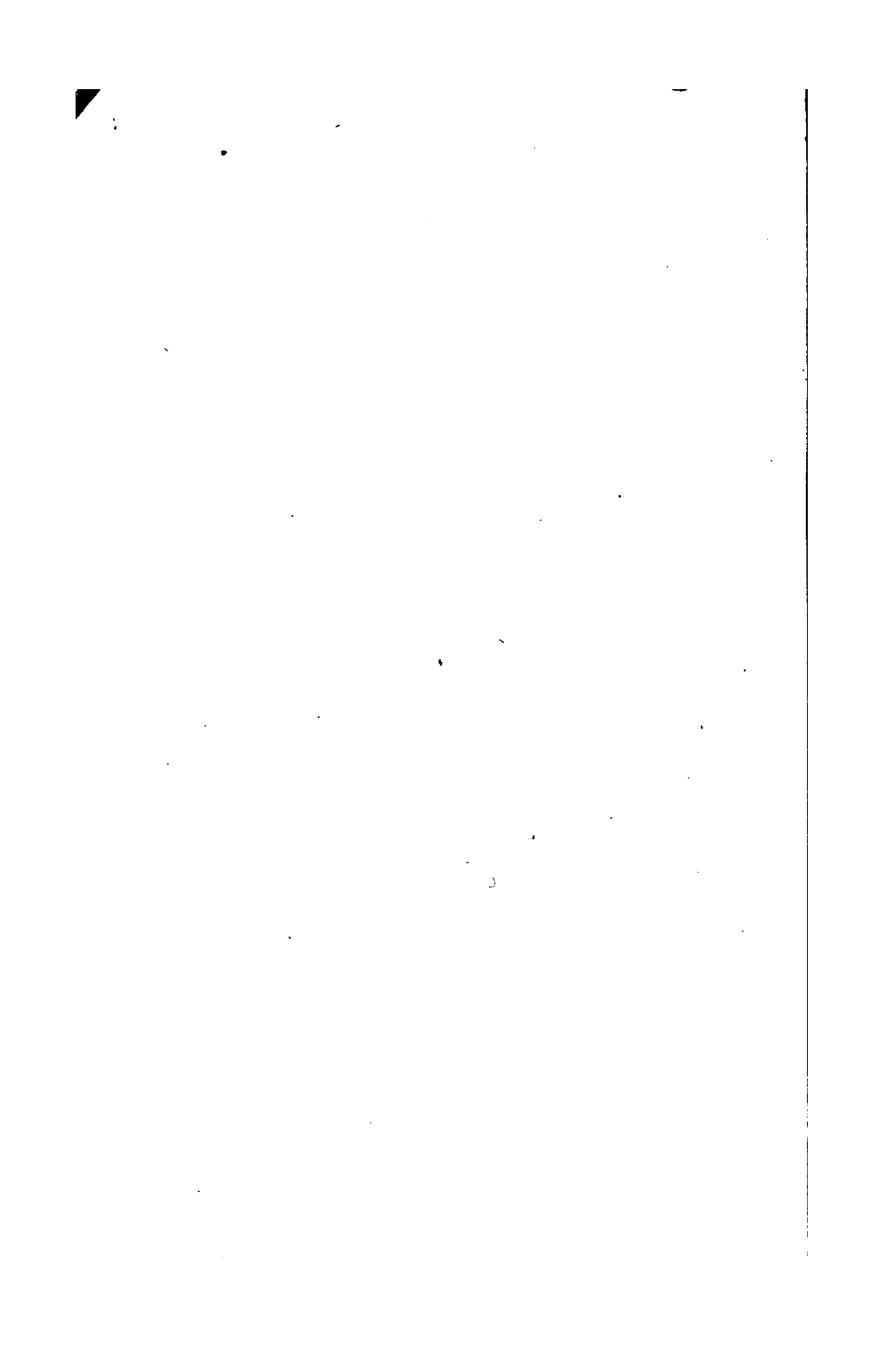
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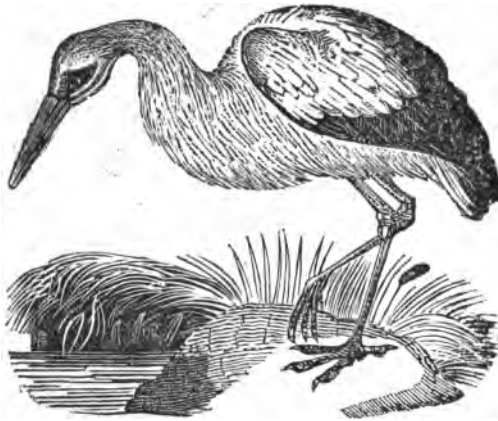




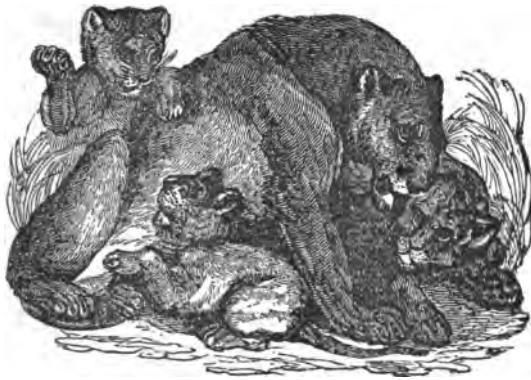








**The Stork.**



**The Lioness and her whelps.**

# SCRIPTURE NATURAL HISTORY;

CONTAINING A DESCRIPTIVE ACCOUNT OF THE

QUADRUPEDS, BIRDS, FISHES, INSECTS, REPTILES,  
SERPENTS, PLANTS, TREES, MINERALS, GEMS, AND PRECIOUS STONES,  
MENTIONED IN THE BIBLE.

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BY WM. CARPENTER.

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FIRST AMERICAN, FROM THE LATEST LONDON EDITION, WITH IMPROVEMENTS,

BY REV. GORHAM D. ABBOTT.

ILLUSTRATED BY NUMEROUS ENGRAVINGS.

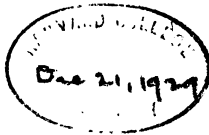
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## PREFACE

### TO THE THIRD ENGLISH EDITION.

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IN preparing this edition of the **SCRIPTURE NATURAL HISTORY** for the press, the author has carefully revised it throughout, and made such alterations in style and matter as will, he hopes, render it more worthy of public acceptance than the former edition. In doing this, he has borne in mind a suggestion put forth in a favorable critique upon the first impression in the 'Eclectic Review,' and by divesting the work of some of the dryness and tedium of criticism, and making it less diffuse, he has sought to give it a more 'popular,' though not a less useful character. These alterations have enabled him, without omitting any thing of real value and utility, to bring the volume into a smaller compass, and publish it in a more attractive form.

Since the publication of the former edition of this work, the author has been driven, by the force of circumstances, and a deep sense of moral responsibility, to devote much of his time and attention to objects of an apparently different aspect to those pursued in biblical literature, and which are regarded with considerable jealousy and suspicion by a large proportion of the religious public. This is not the place to justify the course he has taken, or to defend the motives by which he has been actuated. It is enough to say, that his attachment to biblical pursuits is as strong as ever, and that his conviction of the paramount importance and infinite value of pure and undefiled religion grows with his growth, and strengthens with his strength. To assist in removing out of the way some of those impediments to the spread of religion, which the sullen discontent and reckless profligacy produced by the inordinate and inadequately remunerated labor, combined with the super-induced ignorance, of the manufacturing population almost every where present, he has encountered the perils and priva-



tions of imprisonment. A consciousness of the purity of his motives, however, amply compensates him for all these—and much more.

The indulgent reader will pardon the intrusion of these remarks. They have been deemed to be necessary, in consequence of certain misrepresentations which some persons have either wilfully or ignorantly put forth, as to the author's continued attachment to the truths of Revelation.

*April 5, 1832.*

# PREFACE

TO THE FIRST EDITION.

---

HAVING stated the nature and object of his work in the Introduction to the following pages, it is only necessary that the author should here subjoin a few words, by way of explanation.

There being two editions of Dr. Harris's 'Natural History of the Bible,' extant in this country, (England) it is natural that the public should inquire upon what grounds a second work of this description is presented to their notice. The answer to this inquiry may be very brief.—Dr. Harris's work is by far too critical for general purposes, and contains but little 'Natural History.' It furnishes valuable materials to aid the student in his investigations; but to the unlearned reader it presents few attractions; while its frequent conjectural criticisms, and utter destitution of evangelical sentiment and feeling, render it by no means desirable as a medium of religious instruction.

In every part of the following work, the author has given the authorities upon which his statements are founded; and conceiving that literary property is as sacred and inviolable as that of every other species, he has conscientiously pointed out the *immediate* sources of his information. This may be sometimes found operating to the prejudice of others; but he cannot be answerable for such a result.

In availing himself of the labors of his predecessors, the author has frequently found the highest authorities supporting conflicting opinions: in such cases, he has decided to the best of his judgment, and where the limits assigned to his work would permit of it, he has laid before the reader the grounds of his decision.

The author cannot close these prefatory observations without acknowledging his particular obligations to Mr. Charles

Taylor, the late erudite and indefatigable editor of Calmet; and also to Professor Paxton. To the former, for the result of much laborious investigation, to identify the subjects of Scripture Natural History; and to the latter, for many felicitous illustrations of particular passages of the Sacred Writings. The chief inducement with the author to avail himself so freely of the writings of the last-mentioned author, was their evangelical tone, and their strong tendency to elevate the religious feelings of the reader. Written under the influence of a deep but enlightened piety, Professor Paxton's 'Illustrations of the Holy Scriptures' present a striking contrast to the cold and lifeless 'Illustrations' generally furnished in biblical works.

With reference to the embellishments, it is only necessary to say, that those objects have been selected which are the least known in this country; and the best authorities have been chosen for their representation. The author's thanks are due to the respective artists, for the fidelity and taste with which they have executed their work.

Relying upon the same indulgence that has been extended to his former efforts in the cause of biblical literature, the author presents the following work to the acceptance of the religious public. May HE whose cause it aims to promote, render it subservient to his gracious purposes!

## PREFACE.

---

THIS book was originally intended to be but a re-print of the English work, by Carpenter. His volume, however, was found to contain so much of Biblical criticism, and Classical learning, as to be adapted almost exclusively to the use of the Greek and Hebrew scholar.

It was therefore thought best to revise Carpenter ; to omit those classical discussions, and verbal criticisms, which although interesting and valuable to the orientalist, must, from their very nature, be of little service to common readers ; and to bring the substance of the Scripture illustrations, found in his volume, within the reach of the readers of the English Bible.

Such a revision of Carpenter's volume, with alterations and additions, was but just accomplished and ready for the press, when the third London edition of his work came to hand, published under countenance of the ' Book Society for promoting Religious Knowledge,' in which the design above stated was fully pursued, and that too, with evidence of much judgment and good taste.

The very favorable and commendatory notices which his first editions had received from the ' Eclectic and Monthly Reviews,' 'The Athenæum,' 'The Christian Remembrancer,' 'The Home Missionary,' 'The Baptist,' 'The Methodist,' 'The Congregational,' 'The Evangelical,' and 'Imperial Magazines,' and other publications, induced him to prepare an edition better calculated for popular use and general circulation.

'In doing this,' the author remarks in his preface, 'he has borne in mind a suggestion, put forth in a favorable critique upon the first impression, in the "Eclectic Review," and by divesting the work of some of the dryness and tedium of criticism, and making it less diffuse, he has sought to give it a more "popular," though not a less useful character. These alterations have enabled him, without omitting any thing of real value and utility, to bring the volume into a smaller compass, and a more attractive form.'

It was therefore only justice to Mr. Carpenter, to *re-publish his own revision* of this Book. This has been done, with a few alterations and additions, which it is hoped will render it not less acceptable and useful to readers among us. The work is intended to be a plain and simple account of the subject of which it treats, to be illustrated with numerous engravings, in a manner suited to the comprehension of those, who have little or no acquaintance with Classical or Scientific Learning.

The English Editors and Reviewers speak in the highest terms of the indefatigable industry displayed in Mr. Carpenter's volume. But we cannot withhold our regret that they, who have noticed with so much approbation the result of *his* labors, should have unconsciously awarded credit, that takes from *another* his due.

We cannot but regard the course pursued by Mr. Carpenter as very extraordinary and very unjust. And we respectfully invite his English friends and ours, to compare his volume, with the work of our distinguished countryman, the Rev. Dr. Harris.

In 1793, Dr. H. published his first 'Natural History of the Bible,' which met in this country and in Europe the honorable and flattering reception it deserved.

Twenty-seven years afterwards, in 1820, he published a second volume under the same title. He says in the preface of this, 'I kept on my table, an interleaved copy, (of his first work) and in the course of my reading, transferred to it, the additional information, which I collected. Desirous of pursuing the investigation still farther, I procured, with considerable expense, many valuable books, which I had not, before, the opportunity of consulting. In fine, I have re-examined every article, with better knowledge and greater care; have transcribed and new-modelled the whole, and made such amendments and additions throughout, as render this rather a *new work*, than a new edition; and to its completion and perfection, the studies and acquisitions of more than twenty-five years have contributed.

'I have endeavored to substantiate every article, which I have introduced, by proofs stated with all possible clearness, and to illustrate it by criticisms and explanations; yet I lay claim to no praise, but that of having brought into a regular form, such information as I could collect, from the best and most unexceptionable sources. In the most unrestrained terms I acknowledge that I have borrowed from all authors of established reputation, with freedom.

'I have subjoined a list of the principal books which I have consulted, (a catalogue of *fifty three* different works) with a reference to the edition; which I used; and would still mention, that in the notes, (scattered through the volume) will be found references to more than twice the number, in the following catalogue.

'In short, I have spared neither labor nor expense, in the collection of materials; and have aimed to make my work a useful and valuable treasure of information, and worthy of the approbation of the public.

'Of my authorities and the use, which I have made of them, it becomes me to speak with grateful acknowledgments. The first and principal of these is Bochart, who in his *Hieroicoicon* has, in the most learned researches, traced the names of the animals mentioned in Scripture through the different languages and dialects of the East, &c. &c. 'He had the opportunity of consulting the Nat. Hist. of Damir, and other Arabian authors.

'The *Physique Sacrée* of Scheuchzer, in eight volumes folio, is a magnificent work, with which a noble friend in Paris supplied me. It has contributed greatly to enrich my articles.'

He thus goes on to enumerate some of the most distinguished authors, who had been of assistance, in treating of the PLANTS, the FISHES, INSECTS, and *Precious Stones*.

Among these principal authorities, are the names of Hiller, in the *Hierophyticon*, Celsius in his *Hierobotanicon*, Dioscorides, the Elder Pliny, Alpinus, Rauwolf, Hasselquist, Shaw, Russell, Forskal, Bruce, Rudbeck, Lemnius, Braunius, and Calmet.

The Lexicons of Castel, Buxtorf, Meninski, and Parkhurst were the companions of his labors. The commentaries of Michaelis and the illustrations of Paxton, we may add to swell the list.

Under these circumstances it is, that Mr. Carpenter takes up the work of Dr. Harris, and, changing the arrangement from an Alphabetical to a Scientific one, making some omissions and some alterations, and inserting some valuable additions, claims the work as his own. A comparison of any of the important articles in the two books, such as that on Flax, the Behemoth, the Eagle, the Fox, but much more a comparison of the two entire works will show how much of Mr. Carpenter's materials were made ready to his hand.

But this, is not all ; with an unkind and ungenerous insinuation in his preface, calculated to injure Dr. Harris, if not designed to prevent the circulation of his work, and of course, a comparison of the two, which might prove unpleasant to Mr. Carpenter, he announces to the world, that the ' utter destitution of evangelical sentiment in the volume,' from which he had gathered and gleaned, more than from all other works together, ' renders it unfit for general use.'

To despoil an author of the results of his literary labors, who with indefatigable zeal, and distinguished ability and success has been serving the cause of Science and Biblical Literature with his time, his talents, his labors and his money, for more than a quarter of a century, and then to brand him as a heretic, in order to conceal the robbery, does not appear to us as evincing much of the spirit or practice of piety.

Would that Mr. Carpenter, with all that he has borrowed from the work of Dr. Harris, had taken, also, a note appended to its ingenuous and unassuming preface :

' Est benignum, et plenum ingenui pudoris, fateri per quos profiteris.' Plin. Nat. Hist. Pref.

Justice at least should have been given to one who so early and ably *led the way*, in the study of the ' Natural History of the Bible.'

It argues little in favor of the purity or liberality of our principles, if we have no eye to discover nor heart to acknowledge the high Literary, Critical and Scientific merit of another, because, forsooth, his Theological opinions may be different from our own.

The circulation of Dr. Harris's work in Europe for many years (it having passed three editions in London) is a testimony to its value, not easily set aside. And we cannot but hope, that he will favor the literary world, with another edition of his invaluable volume, with such additions and improvements as the lapse of a dozen years will have enabled him to make. And we are sure that Literary and Scientific men of every country, who alone are able to appreciate these labors, will award to him, the full measure of thanks, which he deserves. There is perhaps no living writer who has devoted so much attention to this particular subject, or has such a mass of materials at command.

Perhaps some may think, that the writer of this preface is a friend, or acquaintance of Dr. H., writing under his eye and perhaps at his suggestion, and therefore *affects* to feel so

sensibly the injuries of the respected Author. The writer deems it as due to himself, to say, that he is neither kinsman, nor acquaintance, and has never, to his knowledge, had the pleasure of seeing the Rev. Dr. Harris. And the latter, as deeply as he must feel his own wrongs, does not dream that such a preface as this is in hand, or probably never heard of its writer. He, if he knows his own heart, would have been equally ready to do the same justice, that he has attempted here, to Mr. Carpenter, had he been the aggrieved and any other individual the aggressor.

But to return to the volume now presented to the Christian community, it is sincerely hoped, that it may contribute, in some good degree, to increase and gratify the interest which the subject of it has at this day so generally awakened.

The American Editor can truly say, that the delightful illustrations of scripture, which have been continually coming before his mind, in the progress of his examinations, have made him more sensible than ever, how much of real, *intellectual and moral pleasure and improvement* is lost by a want of acquaintance with the Natural History of the Bible.

And therefore does he most cordially commend this study and this volume to the notice of all, and especially of the young, who desire a fuller acquaintance with the beauties and treasures of the Sacred Oracles.

GORHAM D. ABBOTT.

*Boston, Oct. 24th, 1832.*





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**SCRIPTURE**  
**NATURAL HISTORY.**

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## INTRODUCTORY REMARKS,

BY THE AMERICAN EDITOR.

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THERE is no subject, that can be named, in so few words, that embraces such an extent and variety of interesting and useful information as the *Natural History of the Bible*. It includes within the range of its various objects, everything that can invite the attention, or reward the inquiries of the Natural Philosopher. It furnishes subjects for investigation, which have engaged the interest of the most gifted minds, and those too, under the guidance of inspiration, during a period of more than Four Thousand Years. It leads the mind back to the hour, when the world was in its infancy, and when, at its birth, the 'morning stars sang together, and all the sons of God shouted for joy.' And it extends down beyond the time when the Saviour of the world ascended, in the clouds of heaven, to his Father's throne.

The whole kingdom of nature, in all the multiplicity and variety of its objects, is brought to view in the 'Perfect Book,' with a clearness of light, which is not elsewhere to be found.

The simple yet truly philosophical arrangement, presented in the 'sublimely beautiful narrative of the Creation,' clearly shows that the pen of the sacred historian was guided by the hand of a master.

But there are various other considerations which render this a subject of the deepest interest. In the early ages of the world, so far as we know, Literature, Science, and Poetry, were cultivated solely by the prophets, or servants of the Most High. We have no evidence that other minds were devoted to such pursuits. And the writers of the Bible had no opportunity to resort to the writings of idolatrous heathen around them, to illustrate or enforce their own eloquence and song. There was no *Classical Literature* then, to furnish learned

allusions. And the spirit of sacred eloquence and poesy was free to expatiate in the wide field of nature, that was open and unoccupied before her. And almost every natural object, in the *firmament above*, in the *earth beneath*, or in the *mighty waters*, was made to contribute to her ends. With inimitable skill, have the sacred penmen drawn the richest of imagery and the happiest and most forcible illustrations, for their 'high themes,' from these endless resources. The splendor of the sun, the beauty of the stars, the genial influence of the clouds and the dew, the fragrance of the violet, and the flavor of fruit;—the *animal* and *vegetable kingdoms*, in all their rich variety; everything animate and inanimate, that adorns and enriches *earth*; whatever gives interest and sublimity to the *mighty deep*, either in the majesty of its angry mountain wave, or in the mirror of its peaceful repose,—are all brought to bear upon the object of the Poet and Prophet, in their efforts to enlighten and to save the world.

Hence it is, that an intimate and accurate acquaintance with the natural history of the East, is so interesting and essential to the intelligent reader of the Bible.

It is not to be supposed that the sacred writers possessed, in all respects, the same degree or kind of knowledge, that we do, in the various departments of Science and Philosophy. According to all the ordinary laws of the human mind, in advancing in knowledge and in skill in acquiring it, there must have been very different degrees of information entertained, at different periods, during the long course of 4000 years. In all truth, except what is exclusively revealed from heaven, the human mind makes progress. So that it is by no means to be expected that, on all subjects of Natural Science, and in every instance, the sacred writers will accord, in their views, with our modern philosophy.

I cannot perhaps better illustrate this sentiment, than by reference to the opinions of some of the sacred writers, at least, respecting the form and structure of the earth. I am indebted for the illustration to an eminent divine and biblical student, to whom, I believe, it was suggested, in the course of his own private reading and study of the Scriptures. Some passages in the writings of Moses and David, and other intermediate writers, favor the opinion, that they viewed the structure of the earth as follows:—According to Acts vii. 22, 'Moses was learned in all the wisdom of the Egyptians.' Of course, it is not unlikely, that he embraced those views of

Astronomy and Geology which their Philosophers and Astrol-ogers inculcated. But whether this be, or be not true, the following view would seem to elucidate some passages of scripture, which otherwise appear with far less of beauty and sublimity.

Conceive the earth to have been in their view a flat, circular surface, floating upon the waters of the deep. There would then have been in their minds these *three* distinct ideas :—*First*, A vast expanse of firmament, or sky, above the earth and water. This in general they called ‘the heavens.’ Moses, however, often speaks of the *first*, *second*, and *third* heavens. This division is thus explained :—The *first heaven*, also called the ‘open firmament,’ and what we call familiarly, ‘up in the air,’ was the space above us in which the birds of the air wing their way, and the clouds are seen to move. The *second* was the star-studded sky. And the *third heaven*, beyond the starry-sky, was the place of God’s abode. Thus Paul in 2 Cor. xii. speaks of one ‘caught up into the *third* heaven,’ ‘caught up into paradise.’

The *second idea*, in their conceptions, would have been the circular solid earth, floating upon a sea of, to them, unknown and inconceivable extent.

The *third prominent point*, in accordance with their views, would have been the situation of the world beneath. They probably supposed the abode of departed spirits in the world of woe, to be far below the bottom of the deep. With such conceptions, in the minds of the ancients, respecting Heaven and Earth and Hell, how sublime and beautiful appears David’s description of God’s Omniscience and Omnipresence, in the 139th Psalm.

‘O Lord, thou hast searched me and known me. Thou knowest my down-sitting, and mine up-rising ; thou understandest my thought afar off. Thou compassedst my path and my lying down, and art acquainted with all my ways. \* \* \* \* \*

‘Whither shall I go from thy Spirit ? or whither shall I flee from thy presence ? If I ascend up into Heaven, (the highest place which they conceived of, in the universe,) thou art *there*.

‘If I make my bed in Hell, (that is, the lowest place in God’s dominions) behold, thou art *there*.

‘If I take the wings of the morning and dwell in the *uttermost parts* of the sea ; (still stretching his thought in another direction, through the boundless limits of Jehovah’s empire,)

even *there* shall thy hand lead me, and thy right hand shall hold me.'

How much interest, too, would this opinion, if entertained by the Jews, add to the sentiment in the 46th Psalm.

The writer, in the fulness of his confidence in God, as a strong and sure refuge in the time of trouble, declares that he will trust securely in him, though the earth be shaken, and the mountains overthrown by the mighty heavings of the deep.

'God is our refuge and strength, a very present help in trouble; therefore will not we fear, though the earth be *removed*, and though the mountains be carried into the midst of the sea; though the waters thereof roar and be troubled, though the *mountains shake* with the swelling thereof.'

Such an exposition, whether it be strictly correct or not, does most surely discover new beauties in these passages; and in all these and in all other cases, we have this reflection obviously presenting itself, that the difference of view, between them and us, which such investigations disclose, always relates to points merely of *human knowledge*. We never find them countenancing the least erroneous opinion, on any of the *principles or truths* of divine revelation.

But, notwithstanding the benefits to be derived from an acquaintance with the state of *general knowledge*, among the Jews, and of their ordinary habits of thinking, the value of such kind of information, to the reader of the Bible at the present day, is still more clearly and strikingly seen, in cases where our ideas of the *most common* and *familiar objects* are different from theirs. We all of us are apt to think, and young persons especially are, that the places and occurrences of which we read in the Bible, are too remote in distance and time, to make any clear and vivid impressions upon the mind. But the great difficulty is, in regarding the scene, and the *natural objects* of Scripture History, as not susceptible of the same distinct and tangible apprehension, as we may have of objects and scenes immediately around us, *here*.

Take, for example, the Scripture allusions to the shepherd and his flock. Perhaps there are no objects, in the whole Animal Kingdom, which furnish so many beautiful and affecting illustrations, as the sheep and the fold. The shepherd, the sheep, and the lambs are the sources of illustration, from the beginning to the end of the Bible. And yet how much of the force and beauty of many of them is lost, by a want of acquaintance with the custom of the time, in relation to them.

There is an anecdote, quite in point here, which was related to me, by the same clergyman alluded to above, while preparing this volume for the press.

We were reading together, in our social devotions, the 23d Psalm. After the 2d verse, 'He leadeth me beside the still waters,' he remarked, 'how much the beauty of the passage is lost to readers in this country, from not knowing the customs of the East. Here, you know, we always *drive* sheep. But it was not so there.

'A year or two since, I heard in Boston, that some person had imported a large flock of Saxony sheep, and that they had just arrived in the city. One morning I happened to look out of my window at the moment they were passing by. And I was delighted at the illustration of Scripture, which the scene afforded.

'There were probably an hundred or an hundred and fifty in the flock. The shepherd, who had come over to this country to take care of them, went before the flock. He held his right hand behind him, with the palm, turned towards the sheep. A large buck followed close behind, almost touching with his forehead the palm of the shepherd's hand. The rest of the flock were arranged in very regular order, behind the leader, somewhat in the form of a wedge.

'The shepherd's dog followed behind the whole, urging on the few straggling sheep, who were disposed to linger.

'Whenever the shepherd turned a corner, the leader of the flock obeyed the turn of his hand, and thus the whole number were *led*, without the least difficulty, through any part of the city.'

'Now how many passages in the Bible, which speak of the Good Shepherd's leading the lost and wandering of the flock, back again to the fold, and keeping them in green pastures, &c. are scarcely enjoyed, at all, from not understanding this.

'It is also customary in Eastern countries for the shepherd to give a name to every sheep of the flock. They come at the call of their name, and are easily distinguished and known by those who are accustomed to the shepherd's crook.

'In this light, how tender and beautiful does the passage appear, in the 10th chapter of John.

'He calleth his own sheep by name, and *leadeth* them out. And when he putteth forth his own sheep, he *goeth before* them, and the *sheep follow* him, for they know his voice.'



There is one other remarkable passage illustrative of the general principle of which we have been speaking, that is of so entirely different a character from either of the preceding, that I cannot forbear to mention it. It relates wholly to the *Vegetable Kingdom*.

The 14th chapter of Hosea begins with an expostulation with the backsliding Israelites, and with an earnest invitation to return to God. The most affecting assurances are given of his forgiving mercy towards their past transgressions, and of his blessing for the future. And the consequences of his blessing upon them as returning penitents, are represented in the following manner.

'I will be as the dew, unto Israel.' In some parts of Judea, there is no rain for many months, during the summer season, and the influence of the dew is essential to vegetation. Where this is not felt, there is an arid, sterile desert. Where it is enjoyed, it causes the richest and most luxuriant growth. Though they had become withered and dying like grass, by their wanderings and sins, His grace and spirit, like the dew should revive and invigorate them.

'He shall grow as the lily.' This flower is remarkable for the *rapidity* of its growth. But it is also remarkable for its *frailty*. So it is added, 'and cast forth his roots as Lebanon.' The cedar of Lebanon was a well-known emblem of *stability*.

'His branches shall spread, and his beauty shall be as the olive tree, and his smell as Lebanon.'

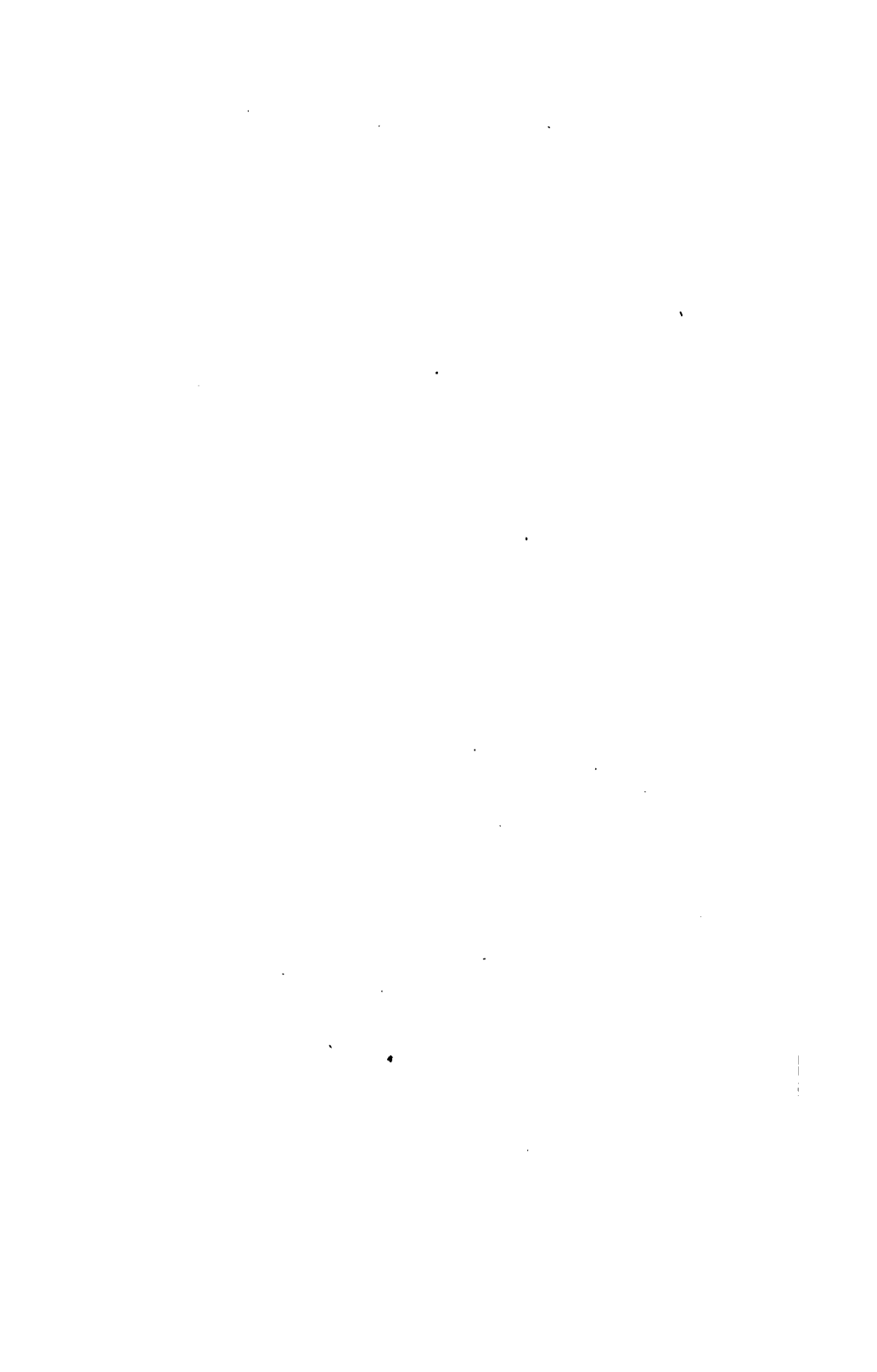
He shall extend, be increased, he shall be beautiful as the olive tree, remarkable for the symmetry of its form, and for the richness and fragrance of its verdure. As it is elsewhere said, 'the fatness of the olive tree;' 'And his smell as Lebanon.' This mountain was distinguished not only for its wonderful growth of firm and majestic cedars, but for the abundance of its beautiful and fragrant flowers. Another object of comparison, in some other place, is the 'scent of the wine of Lebanon,' which was made odorous and sweet with aromatic drugs.

The whole of this delightful passage is filled with the richest imagery, all of which is borrowed from the common objects of vegetable life. And yet how few readers of the Bible perceive or enjoy the precious meaning which these comparisons convey. It seems to me that it would be utterly impossible to express, by any direct language, the *fulness* of blessing, which is couched under these figures of speech.

Now it is the object of this book to open these treasures to every reader. To unfold some at least of the hidden *beauties* of the word of God.

It is by the discovery of such stores of excellence and beauty, that the taste for the study of the Bible will be cherished and increased. And the reader will be able to say, in one sense, if not in the true one, 'Thy word is sweeter than honey to my taste; yea, sweeter than honey in the honey-comb.'







## CHAPTER I.

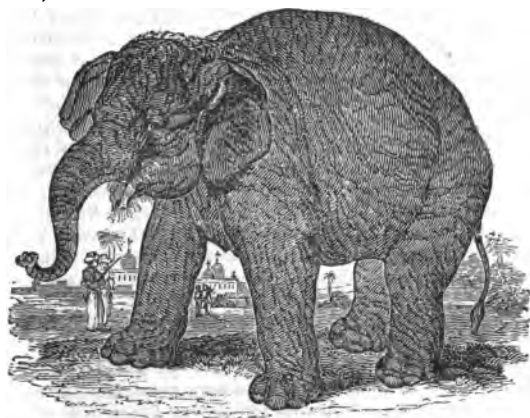
### ANIMALS.

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#### SEC. I.—DOMESTIC ANIMALS.

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#### THE ELEPHANT.



THIS extraordinary animal is no where spoken of in sacred scripture, unless, as some think, it is the behemoth of the book of Job. Of this, however, we have strong doubts, as may be seen in the article Behemoth. In the book of Maccabees, we have an account of the manner in which the elephants were employed in the field of battle, and also of the methods adopted to excite them to a furious contest with the enemy. *Ivory*, too, the well-known production of the elephant, is twice distinctly mentioned in the canonical books, 1 Kings x. 22 2 Chron. ix. 21 On these accounts, it must find a place in this work.

The elephant is in every respect the noblest quadruped in nature,

not less remarkable for its size than its docility and understanding. All historians concur in giving it the character of the most sagacious animal next to man; and yet, were we to take our idea of its capacity from its outward appearance, we should be led to conceive very meanly of its abilities. At first view it presents the spectator with an enormous mass of flesh, that seems scarcely animated. Its huge body, covered with a callous hide, without hair; its large misshapen legs, that seem scarcely formed for motion; its little eyes, large ears, and long trunk, all give it an air of extreme stupidity. But our prejudices will soon subside when we come to examine its history; they will even serve to increase our surprise, when we consider the various advantages it derives from so clumsy a conformation.

The elephant is seen from seven to fifteen feet high. Whatever care we take to imagine a large animal beforehand, yet the first sight of this huge creature never fails to strike us with astonishment, and in some measure to exceed our idea. Having been used to smaller animals, we have scarcely any conception of its magnitude; for a moving column of flesh, fourteen feet high, is an object so utterly different from those we are constantly presented with, that to be conceived it must be actually seen. It would, therefore, be impossible to give an idea of this animal's figure by a description; which, even assisted by the art of the engraver, will but confusedly represent the original. In general it may be observed, that the forehead is high and rising, the ears very large and dependent, the eyes extremely small, the proboscis, or trunk, long, the body round and full, the back rising in an arch, and the whole animal short in proportion to its height. The feet are round at the bottom; on each foot there are five flat horny risings, which seem to be the extremities of the toes, but do not appear outwardly. The hide is without hair, full of scratches and scars, which it receives in its passage through thick woods and thorny places. At the end of the tail there is a tuft of hair, a foot and a half long.

Of all quadrupeds, the elephant is the strongest, as well as the largest; and yet, in a state of nature, it is neither fierce nor formidable. Mild, peaceful, and brave, it never abuses its power or its strength, and only uses its force for its own protection, or that of its community. In its native deserts the elephant is seldom seen alone, but appears to be a social friendly creature. The oldest of the company conducts the band: that which is next in seniority brings up the rear. The young, the weak, and the sickly, fall into the centre; while the females carry their young, and keep them from falling by means of their trunks. They maintain this order only in dangerous marches, or when they desire to feed in cultivated grounds: they move with less precaution in the forest and solitudes, but without ever separating or removing so far asunder as to be incapable of lending each other any requisite assistance. It now and then happens, that one or two is found lingering behind the rest, and it is against these that the art and force of the hunters are united; but an attempt to molest the whole body would certainly be fatal. They

go forward directly against him who offers the insult, strike him with their tusks, seize him with their trunks, fling him into the air, and then trample him to pieces under their feet. But they are thus dreadful only when offended, and do no manner of personal injury when suffered to feed without interruption. It is even known that they are mindful of injuries received; and, when once molested by man, seek all occasions for the future to be revenged. They smell him with their long trunks at a distance; follow him with all their speed upon the scent; and, though slow to appearance, they are soon able to come up with and destroy him.

In their natural state, they delight to live along the sides of rivers, to keep in the deepest vales, to refresh themselves in the most shady forests and watery places. They cannot live far from the water; and they always disturb it before they drink. They often fill their trunk with it, either to cool that organ, or to divert themselves by spirting it out like a fountain.

Their chief food is of the vegetable kind, for they loathe all kind of animal diet. When one among their number happens to light upon a spot of good pasture, he calls the rest, and invites them to share in the entertainment; but it must be a very copious pasture indeed that can supply the necessities of the whole band. As with their broad and heavy feet they sink deep wherever they go, they destroy much more than they devour; so that they are frequently obliged to change their quarters, and to migrate from one country to another. The Indians and Negroes, who are often incommoded by such visitants, do all they can to keep them away; making loud noises, and large fires round their cultivated grounds. But these precautions do not always succeed; the elephants often break through their fences, destroy their whole harvest, and overturn their little habitations. When they have satisfied themselves and trodden down or devoured whatever lay in their way, they then retreat into the woods, in the same orderly manner in which they made their irruption.

Such are the habits of this animal, considered in a social light: if we regard it as an individual, we shall find its powers still more extraordinary. With a very awkward appearance, it possesses all the senses in great perfection, and is capable of applying them to more useful purposes than any other quadruped. The elephant, as we observed, has very small eyes, when compared to the enormous bulk of its body. But though their minuteness may at first sight appear deformed, yet, when we come to examine them, they are seen to exhibit a variety of expression, and to discover the various sensations with which it is moved. It turns them with attention and friendship to its master: it seems to reflect and deliberate; and as its passions slowly succeed each other, their various workings are distinctly seen. Nor is it less remarkable for the excellence of its hearing. Its ears are extremely large, and greater in proportion than even those of an ass. They are usually dependent; but it can readily raise and move them. They serve



also to wipe its eyes, and to protect them against the dust and flies, that might otherwise incommode them. It appears delighted with music, and very readily learns to beat time, to move in measure, and even to join its voice to the sound of the drum and the trumpet.

Its sense of smelling is not only exquisite, but in a great measure pleased with the same odors that delight mankind. The elephant gathers flowers with great pleasure and attention; it picks them up one by one, unites them into a nosegay, and seems charmed with the perfume. The orange-flower seems to be particularly grateful both to its sense of taste and smelling; it strips the tree of all its verdure, and eats every part of it, even to the branches themselves. It seeks in the meadows the most odoriferous plants to feed upon; and in the woods it prefers the cocoa, the banana, the palm, and the sago-tree, to all others. As the shoots of these are tender and filled with pith, it eats not only the leaves and the fruits, but even the branches, the trunk, and the whole plant, to the very roots.

But it is in the sense of touching that this animal excels all others of the brute creation, and, perhaps, even man himself. The organ of this sense lies wholly in the trunk, which is an instrument peculiar to this animal, and which serves for it all the purposes of a hand. The trunk is, properly speaking, only the snout lengthened out to a great extent, hollow like a pipe, and ending in two openings, or nostrils, like those of a hog. An elephant of fourteen feet high has the trunk about eight feet long, and five feet and a half in circumference at the mouth, where it is thickest. It is hollow all along, but with a partition running from one end of it to the other; so that though outwardly it appears like a single pipe, it is inwardly divided into two. This fleshy tube is composed of nerves and muscles, covered with a proper skin of a blackish color, like that of the rest of the body. It is capable of being moved in every direction, of being lengthened and shortened, of being bent or straightened, so pliant as to embrace any body it is applied to, and yet so strong that nothing can be torn from its gripe.

To aid the force of this grasp, there are several little eminences like a caterpillar's feet, on the underside of this instrument, which, without doubt, contribute to the sensibility of the touch, as well as to the firmness of the hold. Through this trunk the animal breathes, drinks, and smells, as through a tube; and at the very point of it, just above the nostrils, there is an extension of the skin, about five inches long, in the form of a finger, and which in fact answers all the purposes of one: for, with the rest of the extremity of the trunk, it is capable of assuming different forms at will, and, consequently, of being adapted to the minutest objects. By means of this, the elephant can take a pin from the ground, untie the knots of a rope, unlock a door, and even write with a pen. 'I have myself seen,' says *Ælian*, 'an elephant writing Latin characters on a board, in a very orderly manner, his keeper only showing him the figure of each letter. While thus employed, the eyes might be observed studiously cast down upon the writing, and exhibiting an appear-

ance of great skill and erudition.' It sometimes happens that the object is too large for the trunk to grasp: in such a case the elephant makes use of another expedient as admirable as any of the former. It applies the extremity of the trunk to the surface of the object, and, sucking up its breath, lifts, and sustains such a weight as the air in that case is capable of keeping suspended. In such manner this instrument is useful in most of the purposes of life; it is an organ of smelling, of touching, and of suction; it not only provides for the animal's necessities and comforts, but it also serves for ornament and defence.

But, though the elephant is thus admirably supplied by its trunk, yet, with respect to the rest of its conformation, it is unwieldy and helpless. The neck is so short that it can scarcely turn the head, and must wheel round in order to discover an enemy from behind. The hunters that attack it upon that quarter, generally thus escape the effects of its indignation, and find time to renew their assaults while the elephant is turning to face them. The legs are, indeed, not so inflexible as the neck, yet they are very stiff, and bend not without difficulty. Those before seem to be longer than the hinder, but, upon being measured, are found to be something shorter. The joints, by which they bend, are nearly in the middle, like the knee of a man; and the great bulk which they are to support makes their flexure ungainly. While the elephant is young, it bends the legs to lie down or to rise; but when it grows old, or sickly, this is not performed without human assistance; and it becomes, consequently, so inconvenient, that the animal chooses to sleep standing. The feet, upon which these massy columns are supported, form a base scarcely broader than the legs they sustain. They are divided into five toes, which are covered beneath the skin, and none of which appear to the eye; protuberances like claws are only observed, which vary in number from three to five. The apparent claws vary; the internal toes are constantly the same. The sole of the foot is furnished with a skin as thick and hard as horn, which completely covers the whole of its under part.

To the rest of the elephant's incumbrances may be added its enormous tusks, which are unserviceable for chewing, and are only weapons of defence. These, as the animal grows old, become so heavy that it is sometimes obliged to make holes in the walls of its stall, to rest them in, and ease itself of the fatigue of their support. It is well known to what an amazing size these tusks grow; they are two in number, proceeding from the upper jaw, and are sometimes found above six feet long. Some have supposed them to be rather the horns than the teeth of the animal; but, besides their greater similitude to bone than to horn, they have been indisputably found to grow from the upper jaw.\*

\* In 1 Kings x. 18, Ivory is designated *great tooth*, which clearly shows, says Mr. Taylor, that the Hebrews imported it in the whole tusk. Ezekiel has used a phrase which more correctly describes the nature of these weapons of defence; *horns of teeth*.

Some have asserted, that these tusks are shed in the same manner as the stag sheds its horns; but it is very probable, from their solid consistence, and from their accidental defects, which often appear to be the effect of a slow decay, that they are as fixed as the teeth of other animals are generally found to be. Certain it is, that the elephant, in a domestic state, never sheds them, but keeps them till they become inconvenient and cumbrous to the last degree.

This animal is equally singular in other parts of its conformation; the lips and the tongue in other creatures serve to suck up and direct their drink or their food; but in the elephant they are totally inconvenient for such purposes. It not only gathers its food with its trunk, but supplies itself with water by the same means. When it eats hay, it takes up a small wisp of it with the trunk, turns and shapes it with that instrument for some time, and then directs it into the mouth, where it is chewed by the great grinding teeth, that are large in proportion to the bulk of the animal. This packet, when chewed, is swallowed, and never ruminated again, as in cows or sheep, the stomach and intestines of this creature more resembling those of a horse. Its manner of drinking is equally extraordinary.



For this purpose, the elephant dips the end of his trunk into the water, and sucks up just as much as fills that great fleshy tube completely. It then lifts up its head with the trunk full, and turn-

ing the point into its mouth, as if it intended to swallow trunk and all, it drives the point below the opening of the windpipe. The trunk being in this position, and still full of water, the elephant then blows strongly into it at the other end, which forces the water it contains into the throat; down which it is heard to pour with a loud gurgling noise, which continues till it is all blown down. From this manner of drinking some have been led into an opinion, that the young elephant sucks with its trunk, and not with its mouth; this, however, is erroneous.

The hide of the elephant is as remarkable as any other part. It is not covered over with hair, as in the generality of quadrupeds, but is nearly bare. Here and there indeed, a few bristles are seen growing in the scars and wrinkles of the body, and very thinly scattered over the rest of the skin; but in general the hide is dry, rough, and wrinkled, and resembles more the bark of an old tree than the skin of an animal. This grows thicker every year; and, by a constant addition of substance, it contracts that disorder well known by the name of elephantiasis, or Arabian leprosy; a disease to which man, as well as the elephant, is often subject. In order to prevent this, the Indians rub the skin with oil, and frequently bathe it, to preserve its pliancy. To the inconveniences of this disorder is added another, arising from the great sensibility of those parts that are not callous. Upon these the flies settle in great abundance, and torment the animal unceasingly; to remedy which the elephant tries all its arts; using not only its tail and trunk, in the natural manner, to keep them off, but even taking the branch of a tree, or a bundle of hay, to strike them off with. When this fails, it often gathers up the dust with its trunk, and covers all the sensible places. In this manner it has been seen to dust itself several times in a day, and particularly upon leaving the bath.

Water is as necessary to this animal as food itself. When in a state of nature the elephant rarely quits the banks of the river, and often stands in water up to the belly. In a state of servitude, the Indians take equal care to provide a proper supply of water; they wash it with great address, and give it all the conveniences for lending assistance to itself.

It is not to be wondered at, that an animal furnished with so many and various advantages, of strength, sagacity, and obedience, should be taken into the service of man. We accordingly find that the elephant, from time immemorial, has been employed either for the purposes of labor, of war, or of ostentation; to increase the grandeur of eastern princes, or to extend their dominions. We have hitherto been describing this animal in its natural state; we now come to consider it in a different point of view, as taken from the forest, and reduced to human obedience. We are now to behold this brave, harmless creature learning a lesson from mankind, and instructed by them in all the arts of war, massacre, and devastation. We are now to behold this half-reasoning animal led

into the field of battle, and wondering at those tumults and that madness which he is compelled to increase.

The elephant is a native of Africa and Asia, being found neither in Europe nor America. The savage inhabitants of Africa, instead of attempting to subdue this powerful creature to their necessities, are happy in being able to protect themselves from his fury. Formerly, indeed, during the splendor of the Carthaginian empire, elephants were used in their wars, but this was only a transitory gleam of human power in that part of the globe; the natives of Africa have long since degenerated, and the elephant is only known among them from his devastations. However, there are no elephants in the northern parts of Africa at present, there being none found on this side of Mount Atlas. It is beyond the river Senegal that they are to be met with in great numbers, and so down to the Cape of Good Hope, as well as in the heart of the country. In this extensive region they appear to be more numerous than in any other part of the world. They are there less fearful of men: less retired into the heart of the forests, they seem to be sensible of his impotence and ignorance; and often come down to ravage his little labors. They treat him with the same haughty disdain which they show to other animals, and consider him as a mischievous little being, that fears to oppose them openly.

But, although these animals are most plentiful in Africa, it is only in Asia that the greatest elephants are found, and rendered subservient to human command. In Africa, the largest do not exceed ten feet high; in Asia, they are found from ten to fifteen. Their price increases in proportion to their size; and when they exceed a certain bulk, like jewels, their value then rises as the fancy is pleased to estimate.

As the art of war is but very little improved in Asia, there are few princes of the East who do not procure and maintain as many elephants as they are able, and place great confidence on their assistance in an engagement. For this purpose, they are obliged to take them wild in their native forests and tame them.

The elephant, when once tamed, becomes the most gentle and obedient of all animals. It soon conceives an attachment for the person that attends it, caresses him, obeys him, and seems to anticipate his desires. In a short time it begins to comprehend several of the signs made to it, and even the different sounds of the voice; it perfectly distinguishes the tone of command from that of anger or approbation, and it acts accordingly. It is seldom deceived in its master's voice; it receives his orders with attention, and executes them with prudence; eagerly, yet without precipitation. All its motions are regulated; and its actions seem to partake of its magnitude, being grave, majestic, and secure. It is quickly taught to kneel down, to receive its rider; it caresses those it knows with its trunk; with this salutes such as it is ordered to distinguish, and with this, as with a hand, helps to take up a part of its load. It suffers itself to be arrayed in harness, and seems to take a pleasure in the finery of its trappings. It draws either chariots, cannon, or

## THE ELEPHANT.

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shipping, with surprising strength and perseverance; and this with a seeming satisfaction, provided that it be not beaten without a cause, and that its master appear pleased with its exertions.

The elephant's conductor is usually mounted on its neck, and makes use of a rod of iron to guide it, which is sometimes pointed, and at others bent into a hook. With this the animal is spurred forward, when dull or disobedient; but, in general, a word is suffi-



cient to put the gentle creature into motion, especially when it is acquainted with its conductor. This acquaintance is often perfectly necessary, for the elephant frequently takes such an affection to its keeper, that it will obey no other; and it has been known to die with grief, when, in some sudden fit of madness, it has killed its driver.

But it is not for drawing burdens alone that the elephants are serviceable in war; they are, in the East, often brought into the ranks, and compelled to fight in the most dangerous parts of the field of battle: they are led, armed before with coats of mail, and loaded on the back each with a square tower, containing from five combatants to seven. Upon its neck sits the conductor, who goads the animal into the thickest ranks, and encourages it to increase the devastation;\* wherever it goes, nothing can withstand its fury; it levels the ranks with its immense bulk, flings such as oppose it into the air, or crushes them to death under its feet. In the mean time, those who are placed upon its back combat as from an eminence, and fling down their weapons with double force, their weight being added to their velocity.† Nothing, therefore, can be more dreadful, or more irresistible, than such a moving machine, to men unacquainted with the modern arts of war; the elephant, thus armed and conducted, raging in the midst of a field of battle, inspires more terror than even those machines that destroy at a distance, and are often most fatal when most unseen.

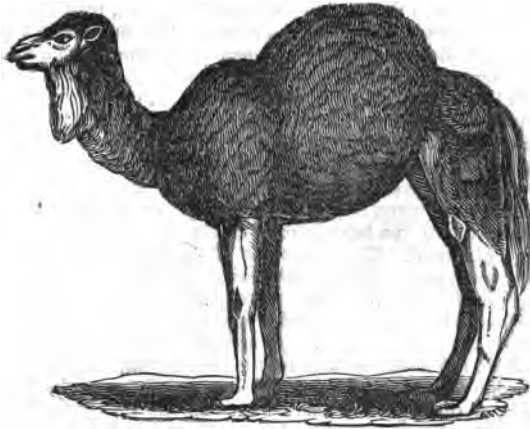
The strength of an elephant is equal to its bulk, for it can, with great ease, draw a load that six horses could not move: it can readily carry upon its back three or four thousand weight; upon its tusks alone it can support nearly a thousand. Its force may also be estimated from the velocity of its motion, compared to the mass of its body. It can go, in its ordinary pace, as fast as a horse at an easy trot; and, when pushed, it can move as swiftly as a horse at full gallop. It can travel with ease fifty or sixty miles a day; and when hard pressed, almost double that distance. It may be heard trotting on at a great distance; it is easy also to follow it by its track, which is deeply impressed on the ground, and from fifteen to eighteen inches in diameter.

In India they are also put to other very disagreeable offices, for in some courts of the more barbarous princes, they are used as executioners; and this horrid task they perform with great dexterity. With their trunks they are seen to break every limb of the criminal at the word of command; they sometimes trample him to death, and sometimes impale him on their tusks, as directed. In this, the elephant is rather the servant of a cruel master, than a voluntary tyrant, since no other animal of the forest is so naturally benevolent and gentle; equally mindful of benefits as sensible of neglect, he contracts a friendship for his keeper, and obeys him to the utmost of his capacity.

\* \* And that they might provoke the elephants to fight, they showed them the blood of grapes and mulberries.' 1 Mac. vi. 34.

† \* And upon the beasts there were strong towers of wood, which covered each of them, and were girt fast to them by mechanical devices: there were also upon each of them, two and thirty strong men, who fought upon them, beside the Indian that ruled them.' 1 Mac. vi. 37.

## THE CAMEL.



THE original name of this animal has passed into most languages, ancient and modern. In Hebrew it is called *Gemel*, from the verb to *repay, requite*; probably on account of its revengeful disposition. 'A camel's anger,' is an Arabian proverb for an irreconcilable enmity. There is no animal which remembers an injury longer, nor seizes with greater keenness the proper opportunity of revenge; which is the more remarkable on account of its gentle and docile disposition, when unprovoked by harsh treatment.

From the Scriptures we learn that the camel constituted an important branch of patriarchal wealth. Job had at first three thousand, and after the days of his adversity had passed away six thousand camels. The Arabians estimate their riches and possessions by the number of their camels; and speaking of the splendor and wealth of a noble, or prince, they observe, he has so many camels; not so many pieces of gold. The Midianites and Amalekites had camels without number, as the sand upon the seashore; many of which were adorned with chains of gold, and other rich and splendid ornaments, Judges vii. 12. So great was the importance attached to the management and propagation of camels, that a particular officer was appointed in the reign of David, to superintend their keepers. Nor is it without a special design, that the inspired writer mentions the descent of the person appointed; he was an Ishmaelite, and therefore supposed to be thoroughly skilled in the treatment of that useful quadruped.



There are as many as seven species of camel discriminated by Zoologists; but it is only the Arabian camel or dromedary, and the Bactrian camel, that are known in Scripture.

The former species is distinguished by having only one bunch or protuberance on the back. Its general height, measured from the top of the dorsal bunch to the ground, is about six feet and a half, but from the top of the head when the animal elevates it, it is not much less than nine feet: the head, however, is usually so carried as to be nearly on a level with the bunch, or rather below it, the animal bending the neck extremely in its general posture. The head is small; the neck very long; and the body of a long and meagre shape; the legs rather slender, and the tail, which is slightly tufted at the extremity, reaches to the joints of the hind legs. The feet are very large, and are hoofed in a peculiar manner, being divided above into two lobes, the extremity of each lobe being guarded by a small hoof. The under part of the foot is guarded by an extremely long, tough, and pliable skin, which, by yielding in all directions, enables the animal to travel with peculiar ease and security over dry, hot, stony, and sandy regions, which would soon parch and destroy the hoof. On the legs are six callosities,—one on each knee, one on the inside of each fore leg on the upper joint, and one on the inside of each hind leg at the bottom of the thigh. On the lower part of the breast is also a large callous or tough tubercle, which is gradually increased by the constant habit which the animal has of resting upon it in lying down.

The native country of the camel is Arabia, from whose burning deserts it has been gradually diffused over the rest of Asia and Africa. The Arab venerates his camel as the gift of heaven, as a sacred animal, without whose aid he could neither subsist, trade, nor travel.

The hair of these animals, which is fine and soft, and is renewed every year, is used by the Arabians to make stuffs for their clothing and furniture. It was of this material that Elijah the Tishbite wore a dress, (2 Kings, i. 8); and also John the Baptist, Matt. iii. 1. It must not be supposed, however, that the description of haircloth used by these and other prophets, mentioned in scripture, bore any resemblance to the beautiful cashmere shawl, imported into this country: it was a much coarser manufacture of this material, and is still used by the modern dervises. We may probably obtain some idea of its texture, from what Braithwaite says of the Arabian huts: 'They are made of camels' hair, something like our coarse hair-cloths to lay over goods.'

Blest with their camels, the Arabs not only want for nothing, but they fear nothing. In a single day they can traverse a tract of fifty leagues into the desert, and thus escape the reach of their enemies. All the armies in the world, says Buffon, would perish in pursuit of a troop of Arabs. Figure to yourself, for instance, observes this writer, a country without verdure, and without water; a burning sand, an air always clear, plains of sands, and mountains still more

parthed, over which the eye extends without perceiving a single animated being ; a dead earth, perpetually tossed by the winds, presenting nothing but bones, scattered flints, rocks perpendicular, or overthrown : a naked desert where the traveller never breathes under a friendly shade, where nothing accompanies him, and where nothing recalls to mind the idea of animated nature ; an absolute solitude, infinitely more frightful than that of the deepest forest ; for to man trees are, at least, visible objects : more solitary and naked, more lost in an unbounded void, he everywhere beholds the extended space surrounding him as a tomb : the light of the day, more dismal than the darkness of night, serves only to give him a clearer idea of his own wretchedness and impotence, and to present before his eyes the horror of his situation, by extending around him the immense abyss which separates him from the habitable parts of the earth : an abyss which he would in vain attempt to traverse, for hunger, thirst, and burning heat haunt him every moment that remains between despair and death. The Arab, nevertheless, by the assistance of his camel, has learned to surmount, and even to appropriate these frightful intervals of nature to himself. They serve him for an asylum, they secure his repose, and maintain his independence. The Arab is early accustomed to the fatigues of travelling, to want of sleep ; and to endure hunger, thirst, and heat. With this view he instructs, rears, and exercises his camels. A few days after their birth, he folds their limbs to remain on the ground, and in this situation he loads them with a pretty heavy weight, which is never removed but for the purpose of replacing a greater. Instead of allowing them to feed at pleasure, and to drink when they are thirsty, he regulates their repasts, and makes them gradually travel long journies, diminishing at the same time their quantity of food. When they acquire some strength, he exercises them to the course ; he excites their emulation by the example of horses, and in time renders them equally swift and more robust. At length, when he is assured of the strength, fleetness, and sobriety of his camels, he loads them with whatever is necessary for his and their subsistence, departs with them, arrives unexpectedly at the confines of the desert, robs the first passenger he meets, pillages the straggling habitations, loads his camels with the booty, and if pursued is obliged to accelerate his retreat. It is on these occasions that he unfolds his own talents and those of his camels ; he mounts one of the fleetest, and conducting the troop, makes them travel night and day, almost without stopping to eat or drink ; and in this manner he easily passes over the space of three hundred leagues in eight days. During all that time of fatigue and travel he never unloads his camels, and only allows them an hour of repose, and a ball of paste each day. They often run in this manner for eight or nine days, without meeting with any water, and when by chance there is a pool at some distance, they scent the water, even when half a league from it. Thirst makes them redouble their pace, and they drink as much at once as serves them for the time that is past, and for as much to

come; for their journey often lasts them several weeks, and their abstinence continues till their journey is accomplished.

The driest thistle and the barest thorn, are all the food this useful quadruped requires; and even these, to save time, he eats while advancing on his journey, without stopping or occasioning a moment of delay. As it is his lot to cross immense deserts where no water is found, and countries not even moistened with the dew of heaven, he is endued with the power, at one watering place, to lay in a store, with which he supplies himself for thirty days to come. To contain this enormous quantity of fluid, nature has formed large cisterns within him, from which, once filled, he draws at pleasure the quantity he wants, and pours it into his stomach, with the same effect as if he then drew it from the spring.

Notwithstanding that the camel is so extremely revengeful as to bear in mind, and resent in the most terrible manner any injury it may have sustained, its patience is the most extraordinary. Its sufferings seem to be great; for when it is overloaded, it sends forth the most lamentable cries, but never offers to resist the tyrant who oppresses it. At the slightest signs it bends its knees, and lies upon its belly, suffering itself to be loaded in this position; at another sign it rises with its load, and the driver getting upon its back, encourages the animal to proceed with his voice and with a song.

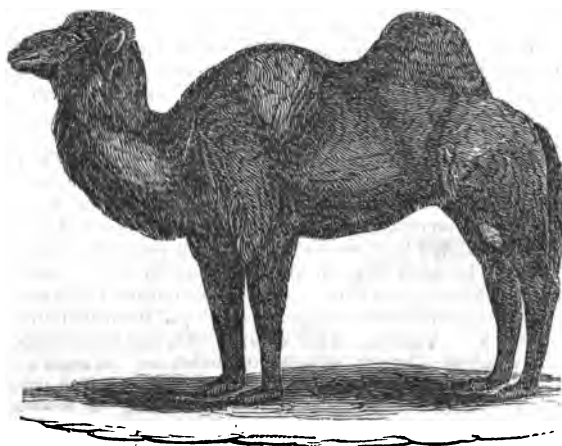
Throughout Turkey, Persia, Egypt, Arabia, Barbary, and various other contiguous countries, all kinds of merchandise are car-



ried by camels, which, of all conveyances, is the most expeditious, and attended with the least expence. Merchants and other travellers assemble, and unite in caravans to avoid the insults and robberies of the Arabs. These caravans are often numerous, and are

always composed of more camels than men. Each camel is loaded according to his strength; the larger ones carrying from a thousand to twelve hundred pounds weight, and the smaller, from six to seven hundred. Burckhardt states that a camel can never be stopped while its companions are moving on. The Arabs are therefore highly pleased with a traveller who jumps off his beast, and remounts without stopping it, as the act of kneeling down is troublesome and fatiguing to the loaded camel, and before it can rise again, the caravan is considerably ahead. He also affirms it to be an erroneous opinion, that the camel delights in sandy ground. It is true, he remarks, that he crosses it with less difficulty than any other animal, but wherever the sands are deep, the weight of himself and his load makes his feet sink into the sand at every step, and he groans and often sinks under his burden. Hence, this traveller states it to be, that camels' skeletons are found in great numbers where the sands are deepest. It is the hard gravelly ground of the desert which is most agreeable to this animal.

The Bactrian camel is distinguished from the Arabian camel or dromedary, by having two bunches on his back. It is not so nu-



merous as the other, and is chiefly confined to some parts of Asia. Unlike the dromedary, whose movement, as we have seen, is remarkably swift, the Bactrian camel proceeds at a slow and solemn pace.

From the account now furnished of this animal, we may see the propriety and beauty of several passages of scripture, in which it is mentioned or alluded to.

Reviewing his own passing days, and properly estimating the shortness of human life, Job exclaims—

O! swifter than a courier are my days:  
They flee away—they see no good.  
As SWELLING SHIPS they sweep on;  
As an eagle swooping on its prey.

This passage has sadly perplexed commentators. The original of the third line, literally rendered, is ‘ships of Abek;’ or, if *Abek* be taken for swiftness, ‘ships of swiftness.’

For the purpose of ascertaining what might probably be the intention of the sacred writer, Mr. Taylor thus analyses the import of the words; *My days pass faster than a running messenger, who exerts his speed when sent on important business; they even fly, like a fugitive who escapes for his life from an enemy; they do not look around them to see for anything good; they are passed as ships of swiftness; as a vulture flying hastily to the newly fallen prey.* By marking the climax, we find the messenger swift, the fugitive more swift, the ships swifter than the fugitive, and the vulture swiftest of all.

In support of this ingenious conjecture, Mr. Taylor cites the following passage from ‘honest Sandys.’

‘The whole caravan being now assembled, consisted of a thousand horses, mules, and asses; and of five hundred CAMELS. THESE ARE THE SHIPS OF ARABIA; THEIR SEAS ARE THE DESERTS, a creature created for burthen,’ &c. It does not clearly appear in this extract, however, though it might be gathered from it, that the camel has the name of the ‘Ship of Arabia;’ But Mr. Bruce comes in to our assistance, by saying, ‘What enables the shepherd to perform the long and toilsome journies across Africa, is the CAMEL, EMPHATICALLY CALLED, BY THE ARABS, THE SHIP OF THE DESERT!’ he seems to have been created for this very trade,’ &c. The idea thus thrown out, and in a great measure confirmed by Sandys and Bruce, is further supported by an account of the swiftness of these metaphorical ‘ships,’ furnished in Morgan’s ‘History of Algiers.’ This writer states, that the dromedary, in Barbary called Aashare, will, in one night, and through a level country, traverse as much ground as any single horse can perform in ten. The Arabs affirm, that it makes nothing of holding its rapid pace, which is a most violent hard trot, for four-and-twenty hours on a stretch, without showing the least signs of weariness, or inclination to bait; and that, having swallowed a ball or two of a sort of paste, made up of barley-meal and a little powder of dry dates, with a bowl of water, or camel’s milk, the indefatigable animal will seem as fresh as at first setting out, and ready to continue running at the same scarcely credible rate, for as many hours longer, and so on from one extremity of the African desert to the other, provided its rider could hold out without sleep, and other refreshments. During his stay in Algiers, Mr. Morgan was once a party in a diversion in which

one of these *Aashari* ran against some of the swiftest *Barbs* in the whole *Neja*, which is famed for having good ones, of the true Libyan breed, shaped like greyhounds, and which will sometimes run down an ostrich. The reader will not, we apprehend, be displeased at our transferring his account to these pages.

'We all started like racers, and for the first spurt, most of the best mounted among us, kept pace pretty well; but our grass-fed horses soon flagged: several of the Libyan and Numidian runners held pace, till we, who still followed upon a good round hand gallop, could no longer discern them, and then gave out; as we were told after their return. When the dromedary had been out of sight about half an hour, we again espied it, *flying towards us with an amazing velocity, and in a very few moments was amongst us, and seemingly nothing concerned*; while the horses and mares were all on a foam, and scarcely able to breathe, as was likewise a tall fleet greyhound dog, of the young princess, who had followed and kept pace the whole time, and was no sooner got back to us, but lay down panting as if ready to expire.'

This account shows, also, with what propriety the prophet calls this animal the 'swift dromedary,' (Jer. iii. 23,) as well as the wisdom of Esther's messengers, in choosing it to carry their despatches to the distant provinces of the Persian empire, Esth. viii. 10.

The writer just quoted, informs us, that the Arabs guide their dromedaries by means of a thong of leather, which is passed through a hole purposely made in the creature's nose. Will not this illustrate the expression in 2 Kings, xix. 28: 'I will put my hook in thy nose, and my bridle in thy lips, and I will turn thee back by the way by which thou camest?' This denotes, no doubt, the depth of the Assyrian's humiliation, and the swiftness of his retreat.

Another passage which Mr. Taylor thinks may be illustrated by the application of the term *Aashare* to a swift dromedary, is Prov. vi. 10, 11:

A little sleep, a little slumber,  
A little folding of the arms to sleep;  
So shall thy poverty come as one that travelleth,  
And thy want as an armed man.

It is evident that the writer means to denote the speed and rapidity of the approaches of penury; therefore, instead of, 'one that travelleth,' we may read 'a post, or quick messenger,' an *express*. But our present business is with the 'armed man.' Now, the words thus translated, are no where used to denote an armed man, or 'a man of a shield,' as some would render them literally; but the Chaldee paraphrast translates them thus, '*swift* like an *Aashare*,' or, mounted on an *Aashare*, i. e. an *Aashare*-rider, to answer to the post or express, in the former line. Thus we shall have an increase of swiftness suggested here, as the passage evidently demands. The sentiment, on the principles above suggested, would stand thus:—

So shall thy poverty advance as rapidly as an express,  
And thy penury as a strong and swift antagonist or [*Aashars-rider*.]

In that sublime prediction, where the prophet foretels the great increase and flourishing state of Messiah's kingdoms, by the conversion and accession of the Gentile nations, he compares the happy and glorious concourse to a vast assemblage of camels: 'The multitude of camels shall cover thee, the dromedaries of Midian and Ephah.' That people, rather than irrational animals are intended, is evident from these words; 'All they from Sheba shall come; they shall show forth the praises of the Lord.' Isa. lx. 6. In adopting this figure, the prophet might, perhaps, have his eye on the hieroglyphical writing of the Egyptians, in which the figure of a camel represented a man; and if so, besides its strict conformity to the genius of Hebrew poetry, we can discern a propriety in its introduction into this illustrious prediction. Some interpreters piously refer the prophecy to Christ himself; and imagine it began to receive its accomplishment when the magi, proceeding from the very places mentioned by the prophet, worshipped the new-born Saviour, 'and presented unto him gifts; gold, and frankincense, and myrrh.' But Midian, and the other places mentioned by the prophet, lay to the south of Judea; while the evangelist expressly says the magi came from the east; which, as well as their name, magi, or wise men, clearly proves that Persia was their native country, and the place of their abode.

To pass a camel through the eye of a needle, was a proverbial expression among the nations of high antiquity, denoting a difficulty which neither the art nor the power of man could surmount. Our Lord condescends to employ it in his discourse to the disciples, to show how extremely difficult it is for a rich man to forsake all, for the cause of God and truth, and obtain the blessings of salvation: 'I say unto you, it is easier for a camel to go through the eye of a needle, than for a rich man to enter into the kingdom of heaven,' Matthew, xix. 24. Many expositors are of opinion, that the allusion is not to the camel, but to the cable by which an anchor is made fast to the ship; and for *camel* they read *camil*, from which our word cable is supposed to be derived. It is not, perhaps, easy to determine, which of these ought to be preferred; and some interpreters of considerable note, have accordingly adopted both views. Others have asserted, that there was near Jerusalem a low gate, called the Needle's Eye, under which a camel could not pass without being unloaded.

However though the exact proverbial expression, which was doubtless well understood, by those to whom it was addressed, may be to us unintelligible, the instruction conveyed is obvious. Riches are a snare and often a hindrance in the way to heaven; and the heart that is supremely set upon them, can never be brought to a cordial surrender of itself to the meek, lowly, and self-denying Jesus, without which, it is impossible to enter into his kingdom. But the

things that are impossible with men, are possible with God. Divine Grace can do away the impossibility by *bringing the heart*, to a willing compliance with the requirements of the Gospel.

In Matthew, xxiii. 24, is another proverbial expression : 'Ye strain at a gnat, and swallow a camel.' Dr. Adam Clarke has proved, that there is an error of the press, in the English translation, by which *at* has been substituted for *out*. The passage as it now stands, conveys no sense : it should be, 'Ye strain out the gnat, and swallow down the camel.' The allusion is to the custom which prevailed among both Gentiles and Jews, of straining the liquor which they drank, for the purpose of ejecting those insects which so swarm in some southern countries, and hence, easily fall into wine-vessels. Some of the commentators have wished to get rid of the camel in this passage, from an idea that our Lord could not have united so huge an animal with so small an insect. They, therefore, propose to understand a larger species of fly. This conjectural emendation, however, cannot be admitted, as it is unsupported by all the ancient versions. The expression must be taken *hyperbolically*. To make the antithesis as strong as may be, two things are selected as opposite as possible ; the smallest insect, and the largest animal. And this very antithesis was used by the Jewish and Greek writers, as appears from Wetstein.

The expression has generally been understood by English readers as implying an effort to swallow, but rejecting something very small and inconsiderable, yet receiving without hesitation something much larger and more important : but the fact is, it alludes to a custom the Jews had of straining or filtering their wine, for fear of swallowing any forbidden insect. Now, as it would be ridiculous to strain liquor for the sake of clearing it from insects, and then eating the largest of those insects ; so the conduct of those is not only ridiculous, but highly criminal, who are superstitiously anxious in avoiding small faults, yet scruple not to commit the greatest sins.

Camels are spoken of in scripture,

1. As an article of wealth and state, Gen. xii. 16. xxx. 43, 2 Kings vii. 9. 1 Chron. xxvii. 30. Ezra, ii. 67. Neh. vii. 69. Job i. 2.
2. As used for travelling, Gen. xxiv. 64. xxxi. 34. 1 Kings x. 2.
3. As an important means of traffic, Gen. xxxvii. 25. 1 Chron. xii. 40. Isa. xxx. 6.
4. As used in war, Judges vi. 5. vii. 12. 1 Sam. xxx. 17. Jer. xlix. 29.
5. As a spoil in war, Judges viii. 21. 1 Sam. xxvii. 9. 1 Chron. v. 21. Job i. 17. Jer. xlix. 32.
6. As sufferers in the plagues brought upon the brute creation for the sin of man, Exod. ix. 3. 1 Sam. xv. 3.
7. As furnishing an article of clothing, Matt. iii. 4. Zech. xiv. 15.
8. Connected with these animals, we have a pleasing instance of industry, humility, and courtesy in a young woman of rank and fortune. Rebekah was seen at the well, condescending by personal labor to supply the wants of the camels of Abraham's servant ;



nor did her good disposition and good conduct go unrewarded; those camels shortly after bore her into the Land of Promise, to become the wife of Abraham's son, and one in the line of mothers from whom He should descend, in whom all the families of the earth are blessed. Gen. xxiv, 19—64.

9. The camel is prohibited for food as unclean, Lev. xi. 14. Deut. xiv. 7.

10. Camels are prophetically and figuratively mentioned in the Old Testament. Isaiah (xxi. 7,) predicts the march of Cyrus's army to the conquest and destruction of Babylon in the time of Belshazzar. Isaiah (xxx. 6,) alludes to the folly and presumption of the Israelites, or Jews, or both, who in the time of their trouble carried treasures on camels into Egypt, to purchase the assistance of that people, and acknowledged not the Lord their God, who alone could save and deliver them. Isa. lx. 6, is part of a most sublime prediction, figurative of the purity and enlargement of the church in the reign of the Messiah, when different nations shall with alacrity and zeal dedicate themselves and their substance to the service of God.

Jer. xlix. 29, 32, predicts the confusion and ruin that should befall Kedar and Habor, enemies of Israel, upon God whom God would bring his judgments by the hand of Nebuchadnezzar king of Babylon. The fulfilment of this prediction took place during the captivity of the Jews, and would tend greatly to encourage their hopes that the promises of their deliverance and return should also in due time be accomplished. Very similar is the prediction, Ezek. xxv. 5, that Rabbah, the chief city of Ammon, should be taken as a stable for camels by the Chaldeans.

## THE HORSE.



THE spirited picture of the war-horse in the book of Job is worthy of the pen of inspiration ; but to appreciate its correctness, we must not look at him in the pasture or the stable, merely, to which he is consigned by man, but in those wild and extensive plains, where he has been originally produced, where he ranges without control, and riots in all the variety of luxurious nature—and also in the field of battle, where his native fire and energy are called forth, and excited into action, by the clang of arms, and the blasts of trumpets.

The horse is universally allowed to be the most beautiful of all the quadruped animals ; the noble largeness of his form, the glossy smoothness of his skin, the graceful ease of his motions and the exact symmetry of his shape, have taught us to regard him as the first, and as the most perfectly formed ; and yet what is extraordinary enough, if we examine him internally, his structure will be found the most different from that of man of all other quadrupeds whatsoever. As the ape approaches us nearest in internal conformation, so the horse is the most remote ;—a striking proof that there may be oppositions of beauty, and that all grace is not to be referred to one standard.

It is not possible to determine the country from which the horse originally came : that it was from the East, however, seems highly probable, since the colder climates do not so well agree with his constitution, and also because the most beautiful, generous, swift, and persevering of all horses in the world, are found in Arabia and Persia.

The swiftness of these animals is incredible, and has given occasion to some very spirited figures in the sacred writings. Thus, Isaiah, describing the terrible devastation which the land of Judea was doomed to suffer by the Assyrian armies, whose horses were probably of the Persian breed, expresses the amazingly rapid movements of their chariots with much beauty and force: 'Their wheels shall be like a whirlwind,' (ch. v. 28.); as does Jeremiah, also: 'Behold, he shall come up as clouds, and his chariots shall be as a whirlwind; his horses are swifter than eagles,' ch. iv. 14. The prophet Habakkuk, in describing the same quality of the horse, uses a different figure, but one equally striking: 'Their horses are swifter than the leopards, and more fierce than the evening wolves; and their horsemen shall spread themselves, and their horsemen shall come from far; they shall fly as the eagle that hasteth to eat,' ch. i. 8.

At a very early period of its history, Egypt was famous for its breed of horses, as we learn from Exod. xiv. 9; and such appears to have been the excellency of the Egyptian horses in subsequent times, that the prophet Isaiah declares to the Israelites, who were disposed to put their confidence in the time of danger on the resources of Egypt, that 'the Egyptians were men, and not God, and their horses flesh, and not spirit,' chap. xxxi. 3.

In early ages, horses were rare among the Hebrews. The patriarchs had none; and after the departure from Egypt, it was expressly forbidden to their ruler to procure them, Deut. xvii. 16. As horses appear to have been generally furnished by Egypt, God prohibited them, 1. Lest there should be such commerce with Egypt as might lead to idolatry. 2. Lest the people might depend on a well appointed cavalry, as a means of security, and so cease from trusting in the promised aid and protection of Jehovah. And, 3. That they might not be tempted to extend their dominion by means of cavalry, and so get scattered among the surrounding idolatrous nations, and thus cease, in process of time, to be that distinct and separate people which God intended they should be, and without which the prophecies relative to the Messiah could not be known to have their due and full accomplishment.

In the time of the Judges, there were horses and war chariots among the Canaanites, but the Israelites were without them; and hence they were generally too timid to venture down into the plains, confining their conquests to the mountainous parts of the country. In the reign of Saul, horse breeding does not appear to have been introduced into Arabia, for, in a war with some of the Arabian nations, the Israelites sold plunder, in camels, sheep, and asses, but still no horses. Solomon was the first among the Hebrews who established a cavalry force, and compared to what is now usual, it was one of very considerable extent, 1 Kings, x. 23. He also carried on a trade in Egyptian horses for the benefit of the crown, 2 Chr. ix. 28.

It is evident from Judges, v. 2; Isa. v. 28; and Amos, vi. 12, that

it was not the practice among the ancients to shoe the horse, as is now done. For this reason, the strength and firmness, and solidity of its hoof were of much greater importance with them than with us, and were esteemed one of the first praises of a fine horse. The latter of the above cited passages may receive illustration from the following remark: 'The Arabs signify the soundness of the feet of grey horses, by an Arabian adage, which indicates that if a cavalcade be passing through a stony country, the grey horses will break the stones with their feet; this opinion appears founded on experience, for in the Atlas mountain, in some parts of Suse, and in all harsh stony districts, we find a much greater proportion of grey horses than of any other color; their feet are so hardy, that I have known them to travel two days' journey through the stony defiles of Atlas, *without shoes*, over roads full of loose broken stones, and basaltic rocks.'

We read, in Zech. vi. 1—3, of four chariots coming out from between two mountains of brass. 'In the first chariot were red horses; and in the second chariot black horses; and in the third chariot white horses; and in the fourth chariot grisled and bay horses.' These four chariots have been interpreted to be the four great monarchies, Chaldean, Persian, Grecian, and Roman, which successively executed God's purposes of mercy and justice; and the various colors of the horses of the different complexions of those monarchies. But Mr. Greenfield, with more probability, understands them of angels; i. e. messengers or agents, called the chariots of the Lord, (Ps. lxxviii. 17), by whom he executes his providential will on earth. The red horses denote war; the black horses famine and pestilence; the white horses the removal of judgments; and the grisled horses, a mingled dispensation of wrath and mercy. Comp. Rev. vi. 2—8.

It is well known that many heathen nations have consecrated horses to the sun or solar light, which deity was represented as riding in a chariot, drawn by the most beautiful and swiftest horses in the world, and performing every day his journey from east to west, to enlighten the earth.

This idolatrous practice had infected Judea, for we read (2 Kings, xxiii. 11,) of the horses which the kings of Judah had given to the sun or solar light.

## THE ASS.



Of this animal there are two varieties described by naturalists—the wild and the domestic. The former we pass by for the present, and direct our attention to the latter. The usual appellation by which this beast is distinguished in scripture, is *CHEMOR*, from a word which signifies *to disturb* or *disorder*, and it is so called, probably, from its extraordinary turbulence when excited. The domestic ass being an animal so well known, renders it unnecessary that we should describe its form and appearance. But it must be noticed, that in eastern countries it is larger and much finer in every respect, and so highly is it valued, as to be preferred to the horse for many domestic purposes. Asses are enumerated as constituting part of the riches of Abraham, Jacob, and Job, (Gen. xii. 16; xxx. 43; Job xlii. 12.); and Anah, a Horite prince, did not consider it beneath the dignity of his character to feed the asses belonging to his father Zibeon, Gen. xxxvi. 24. In the reign of David, they were of so much importance that Jedheiah the Meronothite, a prince of Israel, was appointed to superintend the breed, 1 Chron. xxvii. 30. To ride upon an ass was, in the days of the Judges, a mark of distinction, to which it is probable, the vulgar might not presume to aspire. This is evident from the brief notices which the inspired historian gives of the greatness and riches of Jair, the Gileadite, one of the Judges; ‘He had thirty sons who rode on thirty ass colts; and they had thirty cities, which are called Havoth-Jair unto this day,’ Judges x. 3, 4. Abdon, the Pirathonite, another of the Judges, ‘had forty sons and thirty nephews, who rode on threescore and ten ass colts,’ ch. xii. 13, 14. In several of these passages, it should be observed, a particular kind of the domestic ass is spoken of—the *ATON*—whose value, if we may judge from the circumstances in which we generally find it placed, by far exceeded that of the ordinary description,

It is reasonable to suppose, that the manners and customs of the chosen tribes underwent a change when the government became monarchical, and the fascinating pleasures of a court began to exert their usual influence; still, however, the ass kept his place in the service of the great. Mephibosheth, the grandson of Saul, rode on an ass; as did Abithopel, the prime minister of David, and the greatest statesman of that age. Even so late as the reign of Jehoram the son of Ahab, the services of this animal were required by the wealthy Israelite; for the Shunamite, a person of high rank, saddled her ass, and rode to Carmel, the residence of Elisha, to announce the death of her son to the prophet, and to solicit his assistance, 2 Kings, iv. 8, 24.

But as the number of horses increased in Judea, and people of rank and fashion became fonder of pomp and show, the movements of the nobler and statelier animal were preferred to the rapid but less dignified motions of the ass. This change, it is reasonable to suppose, began to take place from the accession of Solomon to the throne of Israel; for that rich and splendid prince collected a very numerous stud of the finest horses that Egypt and Arabia could furnish. One thing is certain, viz. that after the Jews returned from their long captivity in Babylon, the great and fashionable, for the most part, rode the horse or the mule. The ass was resigned to the use of the lower orders, and it quickly became a mark of poverty and meanness to appear in public on that animal. It has been for want of attending to this change in the customs of the Jewish people, that some commentators of repute have ventured to oppose the obvious meaning of Matt. xxi. 4, 5, which describes our Saviour as riding into Jerusalem upon an ass; a circumstance which, both here and in the prophecy (Zech. ix. 9), is represented as a proof of his meek and lowly spirit. They, however, by referring to the usage in the early periods of the commonwealth, have considered the circumstance as reflecting, in the estimation of the people, high honor upon his character.

The ass being an unclean animal, whose flesh was prohibited by the Mosiac law, renders 2 Kings, vi. 25, somewhat perplexing:—‘And there was a great famine in Samaria, until an *ass’s head* was sold for eighty pieces of silver.’ The difficulty in understanding this passage, according to our translation, would not be so great, did we not know, that however lax the Jews were in points of morality, no kind or extent of suffering could induce them to violate the ceremonial precepts of the law, and more especially those which referred to meats. The late editor of Calmet has succeeded, we believe, in correctly interpreting the passage. In 1 Sam. xvi. 20, we read in our Bibles, ‘And Jesse took an ass laden with bread;’ where the words ‘laden with,’ are an addition to our translators, the original being *ass bread*, or, *an ass of bread*, meaning, as Mr. Taylor conjectures, not *an animal*, but *a vessel*, containing bread; a stated measure, or a *pile*; the LXX. render ‘a *chomer* of bread.’—So we find in the Greek poet Sosibus, ‘He ate three times

in the space of a single day, three great asses of bread,'—which Cassaubon understands of the *lading of three asses*; whereas it means the contents of three vases of the kind called an ass.\* We may also doubt, whether Abigail (1 Sam. xxv. 18,) really loaded *asses*—quadrupeds—with her presents to David; for the original literally is, 'she took two hundred of bread, &c. and placed them on *the asses*;' which suggests something distinct from asses, *animals*; for then it would be, as it is in our version, 'she placed them on asses.' Besides, there is a passage (Ex. viii. 14,) where our translators themselves have rendered *heaps*, what in the original is asses asses; 'They gathered the frogs together, *asses asses*;' i. e. many of that quantity called an *ass*; and so Samson says of his defeated enemies, 'a heap, heaps; *ass asses*.' Now, if we take our English word *pile*, to signify this quantity, without attempting to determine accurately, it will lead us to the idea, that Jesse sent to Saul a *pile* of bread; that a person ate three *piles* of bread in one day; that Abigail placed her bread, wine, corn, raisins, and figs in *piles*; that the Egyptians gathered the frogs in *piles*; that Samson's enemies laid in *piles*. In these renderings there is nothing strained or unnatural. Let this vindicate those Jews, then, who translate the passage which has given occasion to these observations, not 'the head of an ass,' but 'the head of a measure;' for the letters are precisely the same in the original. 'But what must we do with the head?' inquires Mr. Taylor, to which he ingeniously adds, that the word *rash*, here rendered *head*, signifies the *total, entirety*; the *whole*, as Psalms, cxxxix. 17; 'How precious also are thy thoughts to me, O God! How great is the *head* [sum] of them'—the *total*—the entirety. Exod. xxx. 12; 'When thou takest the *head* [sum total—whole enumeration] of the children of Israel,' &c. These ideas combined will render the passage to this effect:—'The famine was so severe, that *the whole of a pile*,' i. e. of bread, or a *complete pile of bread*, 'sold for eighty pieces of silver.' It must not be concealed, however, that there is no mention of *bread* in the original; and therefore the quantity which the word *pile* is here used to signify, is so far indeterminate.

In one part of the ritual, the Hebrews were forbidden to plough with an ox and an ass together.—See Deut. xxii. 10. It is generally thought, that mixtures of different sorts in seeds, breed, &c. were made for superstitious purposes by the heathen, and therefore prohibited by Moses. It is more likely, however, that there was a physical reason for this law. Two beasts of a different species cannot associate comfortably together; and on this ground, never pull pleasantly either in cart or plough: and every farmer knows, that it is of considerable consequence to the comfort of the cattle, to put those together that have an affection for each other. This may be

\* M. Reland has shown, by a great number of authorities, that the heathen called a sort of bottle with two handles, *asses*; probably because they had two long handles, having some conformity to the ears of an ass. He judges this to be the reason why it was said by the ancients, that Silenus, the servant of Bacchus, was carried upon an ass.

frequently remarked in certain cattle, which on this account are termed true yoke-fellows. After all, says Dr. A. Clarke, following Le Clerc, it is very probable that the general design was, to prevent improper alliances in *civil* and *religious* life. And to this, Paul seems evidently to refer, 2 Cor. vi. 14; 'Be ye not unequally yoked with unbelievers;' which is to be understood as prohibiting all intercourse between Christians and idolaters, in social, matrimonial, and religious life. To teach the Jews the propriety of this, a variety of precepts relative to improper and heterogeneous mixtures were interspersed through their law; so that in civil and domestic life, they might have them ever before their eyes.

There are several other references to this laborious and patient animal in the sacred scriptures; but it is not necessary that we should advert to them. We select the following from the excellent work of Professor Paxton.

The ass is not more remarkable for his power to sustain, than for his patience and tranquillity when oppressed by an unequal load. Like the camel, he quietly submits to the heaviest burden; he bears it peaceably till he can proceed no further; and when his strength fails him, instead of resisting, or endeavoring to throw off the oppressive weight, he contentedly lies down, and rests himself under it, recruits his vigor with the provender that may be offered to him, and then, at the call of his master, proceeds on his journey. To this trait in the character of that useful animal, the dying patriarch evidently refers, when, under the afflatus of inspiration, he predicts the future lot of Issachar and his descendants:

'Issachar is a strong ass,  
Crouching between two burdens;  
And he saw that the rest was good,  
And the land, that it was pleasant;  
And he bowed his shoulder to bear,  
And became a servant to tribute.'

Gen. xlix. 14.

The meaning of the prophecy evidently is, that this tribe, naturally dull and stupid, should, like the creature by which they are characterized, readily submit to the vilest master and the meanest service. Although, like the ass, possessed of ability, if properly directed, to shake off the inglorious yoke of servitude, they would basely submit to the insults of the Phœnicians on the one hand, and of the Samaritans on the other. Issachar was a strong ass, 'able,' says a sprightly writer, 'to refuse a load as well as to bear it; but, like the passive drudge which symbolized him, he preferred inglorious ease to the gains of a just and well regulated freedom; and a yoke of bondage to the doubtful issues of war.'

The Oriental husbandman was not less indebted to this creature, for his services, than the statesman and the merchant. The ox and the ass labored together in the cultivation of the same field. To this Isaiah evidently refers, in the following prediction; 'The oxen likewise, and the young asses, that ear (or till) the ground, shall eat clean



provender, which hath been winnowed with the shovel and with the fan.' Isaiah xxx. 24. In these words he foretels a season of great plenty, when the cattle shall be fed with corn better in quality, separated from the chaff, and (as the term rendered *clean* in our version properly signifies) acidulated, to render it more grateful to their taste. The evangelist clearly refers to the practice which was common in Palestine, of ploughing with the ass, when he calls him a creature subject to the yoke, Matt. xxi. 5.

In rice grounds, which require to be flooded, the ass was employed to prepare them for the seed, by treading them with his feet. It is to this method of preparing the ground that Chardin supposes the prophet to allude, when he says, 'Blessed are ye that sow beside all waters, that send forth thither the feet of the ox and the ass,' Isaiah xxxii. 20. They shall be blessed under the future reign of the promised Messiah. In times anterior to his appearing, their country was to be made a desolation; briers and thorns were to encumber their fields; their sumptuous dwellings were to be cast down; their cities and strong-holds were to be levelled with the dust. But when Messiah commences his reign, times of unequalled prosperity shall begin their career. The goodness of Jehovah shall descend in fertilizing showers, to invigorate their fields, and to swell the streams which the skill and industry of the husbandman conduct among his plantations, or with which he covers his rice-grounds. Secure from the ruinous incursions of aliens, and in the sure hope of an abundant harvest, he shall scatter his rice on the face of the superincumbent water, and tread it into the miry soil, with 'the feet of the ox and the ass.' Prosperous and happy himself, he will consider it his duty, and feel it his delight, 'to do good and communicate,'—to succor the widow and the fatherless, to open his doors to the stranger, to diffuse around him the light of truth, and to swell, by the diligent and prudent use of all the means that providence has brought within his reach, the sum of human enjoyment.

But the services of this useful animal were not sufficient, even in times of primitive simplicity, to save him from every kind of abuse. At one time he suffers from neglect, at another, from oppressive labor; and seldom experiences from ungrateful man the kindness and indulgence to which he is fairly entitled. From the watchful care of the Creator, however, he has not been excluded: even to his subsistence, comfort, and ease, the gracious attention of heaven has been directed. See Exod. xxiii. 12; Zec. xiii. 5; xiv. 5. The man of benevolence, who treats even his ass with kindness, shall not lose his reward: besides the approbation of God and his own conscience, he shall be attended with the affectionate attachment of the animal itself. Dull and stupid as he is, the ass, according to Buffon, smells his master at a distance, searches the places and roads which he used to frequent, and easily distinguishes him from the rest of mankind. An equal degree of gratitude is not always to be found among rational beings towards their greatest and best Benefactor. The

ass, although destitute of reason, and even duller than many other animals; although commonly hard wrought and unkindly treated,—discovers an attachment to his master, which the people of Israel did not feel for the living God, who daily loaded them with his benefits. This trait in his character gives uncommon poignancy to the prophet's reproof: 'The ox knoweth his owner, and the ass his master's crib,'—he is not insensible to the kindness of his benefactors; 'but Israel doth not know' the God of his salvation; 'my people doth not consider' from whose hand they receive all their blessings, nor what return they owe to him for his unmerited kindness.

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## THE MULE.

THIS is an animal out of the ordinary course of nature, being bred from an union of the horse and the ass. In the preceding article, we have stated it to have been strictly forbidden in the Mosaic code, to unite either seeds or animals of divers natures, and thus destroy the marked distinction which God has formed between the several parts of his creation. Hence it does not appear that these animals were ever bred by the Hebrews, although they were certainly much used among them during the latter part of the commonwealth. The earliest mention which we find of the mule, in scripture, is in the reign of David, (2 Sam. xiii. 29), unless, as some commentators have thought, they are spoken of in Gen. xxxvi. 24, —a passage which has given rise to much critical conjecture. Enumerating the children of Zibeon, the Horite, the sacred writer says of one of them: 'This was that Anah that found the mules in the wilderness, as he fed the asses of Zibeon his father.'

The mule has been much employed for domestic purposes, both in ancient and modern times. In the reign of David they formed part of the state equipage, (1 Kings i. 33; 2 Sam. xiii. 29, &c.); they were presented among other costly gifts to Solomon, (1 Kings x. 25); and when the utmost expedition was required, they were employed by Mordecai and Esther to convey their despatches throughout the Persian empire, Esth. viii. 10. The Roman ladies had equipages drawn by mules, as appears from the medals of Julia and Agrippina; and at the present day, the coaches of the nobility in Spain are usually drawn by them.

For travelling over wild and mountainous tracts of country, the mule is said to be preferable to the horse, being much more sure-footed. Their manner of going down the Alps, Andes, &c. is very extraordinary. In these passages, on one side are steep eminences; and on the other, frightful abysses; and as they generally follow the direction of the mountain, the road, instead of lying in a level,

forms, at every little distance, steep declivities of several hundred yards downward. These can only be descended by mules, and the animals themselves seem sensible of the danger, and the caution to be used in such descents. When they come to the edge of one of these precipices, they stop without being checked by the rider, and if he inadvertently attempts to spur them on, they continue immovable. They seem all this time ruminating on the peril that lies before them, and preparing themselves for the encounter. They not only attentively view the road, but tremble and snort at the danger. Having prepared for the descent, they place their fore feet in a posture as if they were stopping themselves; they then also put their hind feet together, but a little forward, as if they were going to lie down. In this attitude, having, as it were, taken a survey of the road, they slide down with the swiftness of a meteor. At this time, all the rider has to do is to keep himself fast on the saddle, without checking the reins, for the least motion is sufficient to check the equilibrium of the mule, in which case both he and his rider would perish. The address of these animals in this rapid descent is truly wonderful, for in their swiftest motion, when they seem to have lost all government of themselves, they follow exactly the different windings of the road, as if they had previously settled in their minds the route they were to follow, and had taken every precaution for their safety. Some mules, after having been long used in such journeys, acquire a sort of reputation for their safety and skill, and their value rises in proportion to their celebrity.

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## THE OX.

THE ox, by which the natural historian means black cattle in general, without regard to sex, is one of the most precious and useful to man, among the herbivorous animals. Easily tamed, and of a gentle and placid temper, he is maintained at small expense; and while he consumes but little, he enriches and improves the ground from which he draws his substance. He patiently lends his neck to the yoke, and exerts his great muscular strength in bearing our burdens, in preparing our fields for the seed, and, to this day in eastern regions, in separating the chaff from the grain, after he has assisted in gathering in the harvest. The milk of the herd supplies us with a rich and pleasant beverage; the flesh with a nutritious food; the skin forms a part of our covering, and in many parts of the world still contributes to the defence of warriors in the day of battle. Scarcely a part of this animal indeed can be named, which is not daily rendered subservient to the purposes of utility and elegance. In the patriarchal ages, the ox constituted no inconsiderable

portion of their wealth ; and he is still the basis of the riches of nations, which in general flourish only in proportion to the cultivation



of their territories, and the number of their cattle. In these, all real wealth consists ; for silver and gold are only representations of riches, possessing in themselves little intrinsic value.

These remarks are verified, by the notice which the sacred writers take of the ox, when they describe the wealth of primordial generations : ' Abraham,' say they, ' was very rich in cattle, in silver, and in gold.' ' The Lord has blessed my master greatly,' said the steward of Abraham's house, ' and he has become great ; and he has given him flocks, and herds, and silver, and gold, and men-servants, and maid-servants, and camels, and asses,' Gen. xxiv. 35. Similar language is used in relation to the riches of Jacob : ' The man increased exceedingly, and had much cattle, and maid-servants, and men-servants, and camels, and asses,' Gen. xxx. 43. Another instance only shall be given from the book of Job : ' His substance also was seven thousand sheep, and three thousand camels, and five hundred yoke of oxen, and five hundred she-asses, and a very great household ; so that the man was the greatest of all the men of the east,' Job i. 3. So highly valued was this animal, that it was not thought too mean a present for a king to make in ancient times to his ally ; for Moses informs us, that ' Abimelech took sheep, and oxen, and men-servants, and women-servants, and gave them to Abraham,' Gen. xx. 14. Soon afterwards these eminent personages entered into a treaty with each other, and, on that occasion, Abraham ' took sheep, and oxen, and gave them to Abimelech.'

The ox, especially when fattened, is of a rounder form than any other domestic animal ; a circumstance which has given him a name in the Hebrew text. The beauty of his shape has been celebrated in the lines of the heathen poets, and acknowledged in the

dictates of inspiration. In the prophecies of Jeremiah, the kingdom of Egypt is compared to 'a very fair heifer,' (Jer. xli. 20); and the same allusion is involved in these words of Hosea: 'And Ephraim is as a heifer that is taught, and loveth to tread out the corn; but I passed over upon her fair neck,' Hos. x. 11.

An air of grandeur and majesty has been remarked in the motion and attitudes of this animal, which justify the figure Moses employs in the blessing which he pronounces on the tribe of Joseph: 'His glory is like the firstling of his bullock;' the generosity of his heart, and the majesty of his presence, were conspicuous in the amiable and dignified father of that tribe, the preserver of his family, and an eminent type of our gracious Redeemer.

The playful disposition of a young ox, the son of the herd, as the Hebrews beautifully call him, has been remarked by writers of every age. It is therefore with strict propriety that the Hebrew bard compares the shaking of the earth, and the reeling of the mountains with all their forests, when Jehovah descended in terrible majesty, to deliver the law from the top of Sinai, to the friskings of a young calf: 'He maketh them also to skip like a calf: Lebanon and Sirion like a young unicorn,' Psalms xxix. 6. The prophet Jeremiah is supposed, by ancient interpreters, to refer to the same circumstance, where he foretels the ruin of Babylon: 'Because ye were glad, because ye rejoiced, O ye destroyers of mine heritage: because ye are grown fat,' or sport, 'as the heifer at grass, and bellow as bulls.' A similar allusion is made by Malachi, when he describes the glorious appearance of the promised Messiah, and the joy of his people: 'But unto you that fear my name, shall the Sun of Righteousness arise with healing in his wings; and ye shall go forth and grow up, (or gambol,) as calves of the stall,' Mal. iv. 2.

The strength of this animal is too remarkable to require description; and his courage and fierceness are so great, that he ventures at times to combat the lion himself. Nor is he more celebrated for these qualities, than for his disposition to unite with those of his kind against their common enemy. For these reasons he has been chosen by the spirit of inspiration, to symbolize the powerful, fierce and implacable enemies of our blessed Redeemer; who, forgetting their personal animosities, combined against his precious life, and succeeded in procuring his crucifixion: 'Many bulls have compassed me; strong bulls of Bashan have beset me around,' Ps. xxii. 12. Nor can we conceive a more striking and appropriate symbol of a fierce and ruthless warrior; an instance of which occurs in that supplication of David; 'Rebuke the company of the spearmen, the multitude of the bulls, with the calves of the people, till every one submit himself with pieces of silver,' Ps. lxviii. 30. In the sublime description of Isaiah, which seems to refer to some great revolutions, to be effected in times long posterior to the age in which he flourished; probably in these last days, antecedent to the millennial state of the church; the complete destruction of her

strong and cruel enemies is thus foretold : ' And the unicorns shall come down with them, and the bullocks with the bulls, and their land shall be soaked with blood, and their dust made fat with fatness,' *Isaiah xxxiv. 7.*

The ox is a heavy and sluggish animal, blunt in his feelings, and almost destitute of sagacity ; yet he may be subdued to the yoke, taught to recognise his master, and to persevere with patient industry in his service. It is therefore, with peculiar force and beauty, the prophet contrasts his character and actions with the dispositions and behavior of Israel, who, although taught by God ' more than the beast of the field, had, by yielding to their vicious propensities, become more brutish than the dullest and most stupid of the lower animals : ' The ox knoweth his owner, and the ass his master's crib ; but Israel doth not know, my people do not consider,' *Isa. i. 3.*

The ox, like all the lower animals, is neither tormented by reflecting on the past, nor guessing at the future ; he grazes without fear or doubt, amidst the green pastures, and fattens for the knife, unconscious of the doom that awaits him ; and when his owner comes and leads him away to the slaughter, his brute imagination only figures a richer meadow, or a more agreeable companion. Equally unconscious and cheerful is the miserable youth, who is entangled in the toils of sin, and led away to forbidden pleasures. He is not aware of his danger and his misery : he goes with blind infatuation, and pitiable mirth to his destruction : ' He goeth after her straightway, as an ox goeth to the slaughter, or as a fool to the correction of the stocks,' *Prov. vii. 22.*

Under the law, Jehovah commanded a red heifer (the prevailing color in the east,) to be offered as a kind of sin offering, to purify from certain legal defilements. The animal was killed and then burnt without the camp (as the sin offering was upon the great day of atonement,) and the blood sprinkled seven times directly before the tabernacle, although it was not shed at the altar. The law of Moses only required, that the heifer should be red, and young, without spot and blemish ; and which had never been subjected to the yoke. To these plain instructions, the Jews added an infinite number of niceties and exceptions, in choosing a heifer, for this offering. If she was not perfectly red, without the mixture of any other color ; if she had but two hairs black or white,—she was reckoned unfit for the purpose.

Why the law demands a young cow rather than a bullock, (which was commonly preferred by the divine legislator,) and why one perfectly red, it is not easy to determine. Some pious expositors consider the heifer as a type of our blessed Redeemer : its unblemished perfection represented his immaculate purity and sinless excellence ; its red color indicated the relation of Christ to our family, descended from Adam, that is, a man formed of red earth ; the shedding of his own blood for the sins of his people, and the complete victory which he has gained over all their enemies, whose blood he has sprinkled upon his vesture ; its freedom from the yoke,

his voluntary, his unrestrained devoting of himself to the work of redemption. No doubt can be reasonably entertained, that the burning of the red heifer did prefigure the sufferings and death of Christ; and the purifying efficacy of her collected ashes, mixed in water, the cleansing energy of his blood; for it is the blood of Christ alone that cleanseth from all sin. But it is very doubtful whether all these analogies existed.

The grass of the field, and the young shoots, and leaves of the forest, supply the ox with food, which he collects by a peculiar action of his tongue, and devours in large quantities, with great rapidity. The first circumstance is mentioned by the psalmist as an additional aggravation in the grovelling idolatry of Israel: 'They changed their glory into the similitude of an ox that eateth grass,' Psalm cvi. 20. Disregarding the dictates of reason, which had been planted in their bosoms by the inspiration of God, they exchanged the glorious manifestations or symbols of the Divine presence, with which they were still favored, into the form of an ox, which their Egyptian oppressors had exalted to the rank of a god, and absurdly worshipped; a stupid and irrational animal, doomed by his Maker to fix his brute countenance on the ground, to which both his soul and body return, and to subsist on the coarsest fare.

'To eat grass like an ox' (Dan. iv. 25), was a part of that signal punishment which the Most High inflicted upon the proud and tyrannical king of Babylon. Deprived of reason, which he had so greatly abused, and resigned to the full influence of bestial appetites, he was hurled from his throne and dignity, and expelled from the society of mankind, to roam naked in the open fields, exposed, like the herd with which he associated, to all the inclemencies of the heavens, and forced, like them, to feed on grass: a dreadful lesson to the oppressors of every succeeding age. To the second circumstance, on the manner in which the ox collects his food, the quantity which he devours, and the rapidity with which he eats down the pasture, the king of Moab alludes in his address to the elders of Midian, on the dangers to which their country was exposed from the dreaded invasion of the Israelitish armies: 'And Moab said unto the elders of Midian, Now shall this company lick up all that are round about us, as the ox licketh up the grass of the field,' Numbers xxii. 4.

Under the special care of Oriental husbandmen, the ox, in seasons of plenty, was regaled with a mixture of chaff, chopped straw, and various kinds of grain, carefully winnowed and moistened with subacid water. Such is the meaning of that prediction: 'The oxen likewise, and the young asses, that ear (till) the ground, shall eat clean (or subacid) provender, which hath been winnowed with the shovel and with the fan,' Isaiah xxx. 24. When the Lord returns to bless his repenting people, so rich and abundant shall be the produce of their fields that the lower animals which toil in the service of man, and have assigned for their subsistence the very refuse of the harvest shall share in the general plenty, and feed on provender carefully sep-

arated from all offensive matters, and adapted to their tastes. But, among the Jews, this animal fed most luxuriously when employed in treading out the corn; for the divine law, in many of whose precepts the benevolence of Deity conspicuously shines, forbade to muzzle him, and by consequence, to prevent him from eating, even



to satiety, of the grain which he was employed to separate from the husk. This allusion is involved in the prophet's address to the tribes, in which he warns them, that the abundance and tranquillity which they had so long enjoyed, should not exempt them from the punishments due to their multiplied crimes. Despising the frugal and laborious life of their ancestors, they had become slothful and voluptuous, like an ox that declines to bend his neck any longer to the yoke, and loves the easier employment of treading out the corn, where he riots without restraint in the accumulated bounties of Heaven: 'Ephraim is a heifer that is taught (or has become nice and delicate,) and loveth to tread out the corn: but I passed over upon her fair neck,' Hos. x. 11.

Men of every age and country have been much indebted to the labors of this animal; he was the first that resigned his neck to the plough, that extended the prospects, and multiplied or enlarged the comforts of the rising nations. So early as the days of Job, who was probably the contemporary of Isaac, 'the oxen were ploughing, and the asses feeding beside them, when the Sabeans fell upon them and took them away,' Job i. 14. In times long posterior, when Elijah was commissioned to anoint Elisha the son of Shaphat prophet in his stead, he found him ploughing with twelve yoke of oxen, 1 Kings xix. 19. For many ages the hopes of Oriental husbandmen depended entirely on their labors; this was so much the case



in the time of Solomon, that he observes in one of his proverbs 'Where no oxen are, the crib is clean, (or rather empty;) but much increase is by the strength of the ox,' Prov. xiv. 4. The ass, in the course of ages, was compelled to bend his stubborn neck to the yoke, and share in his labors; but still the preparation of the ground in the time of spring, chiefly depended on the more powerful exertions of the latter. This might be fairly inferred from the text, in which a preference, as might be expected, is given to the ox: 'The oxen likewise, and the young asses, that ear (or till) the ground, shall eat clean provender.' The same inference may be drawn from the proverb of Solomon, already quoted, in which he takes no notice of the ass, although it is more than probable he had been yoked in the plough long before his reign. The superior importance of the ox, even in the light and sandy fields of Syria, is clearly signified in these words of Amos, 'Shall horses run upon the rock? Will one plough there with oxen?' Amos vi. 12.

The laws of Moses, which prohibited his people to join in the same yoke the ox and the ass; and the notice which the afflicted patriarch Job, who flourished long before his time, gives us of the 'oxen ploughing,' clearly prove, that the person who invented the



plough, and instructed the ox, existed very early in the history of the world. We may, with the page of inspiration for our guide, trace the invention to the first descendants of our common father, one of whom was a shepherd, and the other a cultivator of the soil. Nor is the believer in revelation permitted to assign the honor chiefly to them; he is directed to ascribe it to the Spirit of the only wise God: 'Give ye ear, and hear my voice; hearken, and hear my speech. Doth the ploughman plough all day to sow? Doth he open and break the clods of his ground? When he hath made

plain the face thereof, doth he not cast abroad the fitches, and scatter the cummin and cast in the principal wheat, and the appointed barley, and the rye, in their place? For his God doth instruct him to discretion,' Isaiah xxviii. 23—25. By direct revelation from Heaven, or the secret suggestion of his Spirit to the mind of Adam, or his son Cain, they were taught to construct the plough, and bend the pliant neck of the ox to the yoke. The importance of the lesson, confirmed by their own daily experience, they failed not to impress upon the minds of their offspring; and thus, one generation transmitted to another the valuable favor. The ox was also compelled to submit, when the seed-time was over, to the more severe labor of dragging the cart or the waggon. In the book of Numbers, the princes of Israel brought their offering before the Lord, six covered waggons and twelve oxen; that is, six waggons, each drawn by two oxen: and in the same chapter, Moses 'gave two waggons and four oxen unto the sons of Gershon, according to their service; and four waggons and eight oxen unto the sons of Merari, according to their service;' that is, every waggon drawn by two oxen, Numbers vii. 3, 7, 8. The number of oxen commonly yoked in one cart seems to have been two; for the priests and diviners, whom the lords of the Philistines consulted about the captive ark of Jehovah, advised them to make a new cart, and yoke in it two milch kine, for the purpose of carrying back the dread symbol of Divine Majesty, to the place appointed for its reception, 1 Sam. vi. 7. The new cart, in which the king of Israel and his people brought it up from the house of Abinadab, seems also to have been drawn by two oxen, although the number is not so clearly stated, 2 Sam. vi. 3, 6.

The flesh of the herd was not only used by the chosen people, but also reckoned, when young, one of their greatest delicacies. The patriarch Abraham, accordingly, with ardent hospitality, entertained the angels under the oak at Mamre, with 'a calf, tender and good,' (Gen. xviii. 7.); and the pythoness at Endor could think of nothing so delicious and acceptable to set before Saul, as a calf fattened in treading out the corn, 1 Sam. xxviii. 24. Nor had the father in the parable a greater delicacy to set upon the festive board, when he received his returning prodigal, than the fatted calf, Luke xv. 23. The young of the herd were numbered among the blessings which Jehovah promised to bestow upon his ransomed people, and classed with the choicest viands: 'Therefore, they shall come and sing in the height of Zion, and shall flow together to the goodness of the Lord, for wheat and for wine, and for oil, and for the young of the flock, and of the herd; and their soul shall be as a watered garden, and they shall not sorrow any more at all,' Jer. xxxi. 12. The voluptuous nobles of Israel, in the days of Amos, lay upon beds of ivory, and stretched themselves upon their couches, and ate the lambs out of the flock, 'and the calves out of the midst of the stall,' Amos vi. 4. It is obviously the design of the indignant prophet to inform us, that the nobles and princess of his degenerate country indulged without restraint in

every sensual gratification which luxury could suggest, and riches procure.

In times of primeval simplicity, when mankind in general, almost constantly engaged in hazardous pursuits, or toilsome occupations, required for their sustenance a very large quantity of solid and nutritious food, the full grown ox himself was forced to contribute a principal part of every public entertainment. When Adonijah seized the sceptre of Israel, he slew sheep and oxen, and fat cattle; and called all his brethren the king's sons, and all the men of Israel the king's servants, 1 Kings i. 9. The son of Shaphat made a feast equally substantial, when he was invested with the prophetic office (1 Kings xix. 21); and abundance of 'oxen and sheep' were provided for the great and splendid entertainment at the coronation of David, 1 Chron. xii. 40. When Jehoshaphat, the king of Judah, went down to visit Ahab, the king of Israel, at Samaria, the latter killed sheep and oxen for him in abundance and for the people that were with him, 2 Chron. xviii. 2. This was the kind of feast in which they chiefly delighted; from which they could be deterred, neither by the denunciations of Divine judgment, nor the terrors of immediate invasion: 'And in that day did the Lord God of hosts call to weeping and mourning, and to baldness, and to girding with sackcloth; and behold, joy and gladness, slaying oxen and killing sheep, eating flesh and drinking wine,' Isa. xxii. 12, 13. The same custom seems to have continued to the very close of their national state; for, in the parable of the marriage feast, the invitation runs: 'Behold, I have prepared my dinner; my oxen and my fatlings are killed, and all things are ready; come unto the marriage,' Matt. xxii. 4.

It has generally been thought that the Israelites, in making the golden calf which they worshipped in the wilderness (Exodus, xxxii.), were imitating the Egyptians in the worship of Apis, whom they intended to represent by the image which they constructed; as did Jeroboam, also, in setting up the calves at Bethel, 1 Kings xii. 27—30. It must be confessed, however, that this opinion is involved in considerable difficulty, and several expressions in the course of the narrative leave much room to question whether such were really the case, in either instance. It is hardly credible, that not only should the *people*, but *Aaron*, also, at so short an interval after those astonishing displays of the divine majesty and power which they had witnessed, so utterly divest their minds of the occurrence as this opinion would seem to imply. Besides, it should not be lost sight of, that it attributes to them the adoption of an *Egyptian* deity, whom, from past circumstances, if they could really believe in his existence, they must have regarded as a most implacable enemy. But what seems still more decisive against this notion, is the fact, that after the calf was formed, and recognised by the people, as 'the gods' who had 'brought them up out of the land of Egypt,' (ver. 4), Aaron 'built an altar *before* it, and made proclamation, and said, To-morrow is a feast to *JEHOVAH*'—not to *APIS*.

And to this the people assented, as is evident from the succeeding verse. The sin, therefore, as it seems, consisted, not in adopting the idolatrous worship of the heathen deity, but in so far conforming to it as to set up this symbolical and forbidden representation of the true God, and introducing into his worship, upon this occasion, some of the abominations practised by the heathen, chap. xxxii. 6. In the case of Jeroboam, it should be borne in mind, that neither he nor the people *forsook* the worship of Jehovah. He only made a schism, by separating his people from their brethren. The one worshipped the same deity seated on the cherubim at Jerusalem, that the others worshipped on the cherubim, or golden calves, at Dan and Bethel, though these ultimately became the objects of idolatrous veneration. See 2 Kings xvii. 21. 1 Kings xiv. 9. Hosea x. 5; xiii. 2, &c.

## THE SHEEP.

In its domestic state, the sheep is of all animals the most defenceless and inoffensive. With its liberty it seems to have been deprived of its swiftness and cunning; and what in the ass might rather be called patience, in the sheep appears to be stupidity. With no one quality to fit it for self-preservation, it makes vain efforts at all. Without swiftness it endeavors to fly; and without strength sometimes offers to oppose. In its wild state, however, it is a noble and active animal, and is every way fitted to defend itself against the numerous dangers by which it is surrounded.

Of the Syrian sheep, there are two varieties: the one called the Bedouin sheep, which differ in no respect from the larger kinds of sheep in Britain, except that their tails are something longer and thicker; the others are those often mentioned by travellers on account of their extraordinary tails. The latter species is by far the most numerous. The tail of one of these animals is very broad and large, terminating in a small appendage, that turns back upon it. It is of a substance between fat and marrow, and is not eaten separately, but mixed with the lean meat of many of the Arab dishes; and is often used instead of butter. A common sheep of this sort, without the head, feet, skin, and entrails, weighs from sixty to eighty pounds, of which the tail itself is usually fifteen pounds or upwards; but such as are of the largest breed, and have been fattened, will sometimes weigh above one hundred and fifty pounds; and the tail, alone, fifty; a thing to some scarcely credible. To preserve these tails from being torn, the Arabs fix a piece of thin board to the under part, where they are not covered with thick wool: some have small wheels to facilitate the dragging of this

board after them; whence, with a little exaggeration, the story of having carts to carry their tails.

The sheep or lamb was the common sacrifice under the Mosaic law; and it is to be remarked, that when the divine Legislator speaks of this victim, he never omits to appoint, that the rump or tail be laid whole on the fire of the altar. The reason for this has just been stated. It was the most delicate part of the animal, and therefore the most proper to be presented in sacrifice to Jehovah. Mr. Street considers that the precept had additional respect to the health of the Israelites, observing, that 'bilious disorders are very frequent in hot countries; the eating of fat meat is a great encouragement and excitement to them; and though the fat of the tail is now considered as a delicacy, it is really unwholesome.'

In a domesticated state, the sheep, as already suggested, is a weak and defenceless animal, and is, therefore, altogether dependent upon its keeper for protection as well as support. To this trait in its character, there are several beautiful allusions in the sacred writings. Thus, Micah describes the destitute condition of the Jews, as a flock 'scattered upon the hills, as sheep that have not a shepherd,' (1 Kings xxii. 17. See also Matt. ix. 36); and Zechariah prophesied that when the good shepherd should be smitten and removed from his flock, the sheep should be scattered, Zech. xiii. 7. To the disposition of these animals to wander from the fold, and thus abandon themselves to danger and destruction, there are also several allusions made by the inspired writers. David confesses that he had imitated their foolish conduct: 'I have gone astray like a lost sheep,' and conscious that, like them, he was only disposed to wander still further from the fold, he adds, 'seek thy servant,' Psalm cxix. 176. Nor was this disposition to abandon the paternal care of God peculiar to David; for the prophet adopts similar language to depict the dangerous and awful condition of the entire species: 'All we like sheep have gone astray; we have turned every one to his own way,' Isaiah liii. 6. It was to seek these 'lost sheep,' scattered abroad, and having no shepherd, that the blessed Redeemer came into the world. He is 'the good shepherd, who gave his life for the sheep,' (John x. 11,) and his people, though formerly 'as sheep going astray,' have now 'returned to the shepherd and bishop of their souls,' 1 Peter ii. 25. His care over them, and their security under his protection, is most beautifully and affectingly described in the chapter which we just now cited. 'He calleth his own sheep by name, and leadeth them out. And when he putteth forth his own sheep, he goeth before them, and the sheep follow him; for they know his voice. And a stranger will they not follow, but will flee from him; for they know not the voice of strangers. I am the door of the sheep. All that ever came before me are thieves and robbers; but the sheep did not hear them. I am the door: by me if any man enter in, he shall be saved, and shall go in and out, and find pasture. The thief cometh not, but for to steal, and to kill, and to destroy: I am come that they might have life,

and that they might have it more abundantly. I am the good shepherd: the good shepherd giveth his life for the sheep. But he that is an hireling, and not the shepherd, whose own the sheep are not, seeth the wolf coming, and leaveth the sheep and fleeth; and the wolf catcheth them, and scattereth the sheep. The hireling fleeth because he is an hireling, and careth not for the sheep. I am the good shepherd, and know my sheep, and am known of mine. As the Father knoweth me, even so know I the Father; and I lay down my life for the sheep. And other sheep I have, which are not of this fold: them also I must bring, and they shall hear my voice; and there shall be one fold, and one shepherd,' John x. 3—16.

The sprightly and playful inclination of the lamb has passed into a proverb. To their gambols in the pasture, there is an allusion in a bold but appropriate figure, in the 114th Psalm: 'The mountains skipped like rams, and the little hills like lambs. What ailed ye, ye mountains, that ye skipped like rams; and ye little hills, like lambs?' The meek and harmless disposition of this animal has occasioned it to be selected by the Holy Spirit, as a fit type of the Son of God and Saviour of the world. The lamb in the paschal feast, which was roasted whole, and feasted upon by each family of redeemed Israelites, and whose blood, sprinkled upon the door-posts of their houses, preserved them from the sword of the destroying angel, was a lively representation of him 'who gave himself for our sins, according to the will of God and our father;' whose blood has been shed for the expiation of human guilt; and upon whom every redeemed Israelite feeds and lives by faith, John vi. 51—55. He is the lamb of God, who taketh away the sin of the world, (John i. 29), the necessity and efficacy of whose atonement were strikingly prefigured by the daily sacrifices of the Mosaic ritual.

## THE GOAT.



THE usual scripture name for this animal, in a domestic state, is a word which signifies *strength* or *vigor*, and it seems the goat is so called on account of its *agility* and *vigor*.

Dr. Russell and other travellers inform us, that in Syria they have two kinds of goats; one that differs little from the common sort in Britain; the other remarkable for the length of its ears, which are sometimes upwards of a foot long, and broad in proportion. To this description of the goat it is, as Mr. Harmer reasonably supposes, that the prophet Amos refers, in expressing the smallness of that part of Israel that escaped from destruction, and were seated in foreign countries: 'As the shepherd taketh out of the mouth of the lion, two legs, or a *piece of an ear*, so shall the children of Israel be taken out that dwell in Samaria, and in Damascus,' ch. iii. 12.

The goat was one of the clean animals which the Israelites were permitted to eat, and to offer on the altar, (Exodus xii. 5, &c.); and the flesh of the kid is frequently mentioned in terms which show that it was esteemed as a great delicacy, Gen. xxxviii. 16, 17; Jud. xvi. Solomon promises, as a reward to the diligent husbandman, that he shall have *goat's milk* enough for his food, for the food of his household, and for the maintenance of his maidens, (Prov. xxvii. 27); which to us may appear somewhat strange; but Russell assures us, that in Aleppo, these animals are chiefly kept for their milk, of which they yield no inconsiderable quantity; that it is sweet and well-tasted, and frequently used for the making of cheese. This furnishes one amongst many instan-

ces of the importance of historical and local information to a right understanding of the sacred writings.

In Lev. xvii. 7, we read, 'And they shall no more offer their sacrifices unto devils, [or *hairy ones*]. The word here means the idolatrous images of goats worshipped by the Egyptians. It is the same word that is translated 'Satyrs,' in Isa. xiii. 21; where the LXX render it *demons*. Maimonides gives light to this obscure passage, by informing us, that the Zabian idolaters worshipped demons under the figure of goats, imagining them to appear in that form; whence they called them by the name of *Seirim*—*hairy* or *shaggy ones*—and that the custom being spread among other nations, gave occasion to this precept.

There is a precept in Ex. xxxiii. 19, repeated in xxxiv. 26, and Deut. xiv. 21, which alludes, no doubt, to some superstitious rite, used by the idolatrous nations in honor of their gods. A Caraitic Jew, quoted by Cudworth, affirms, that it was customary among them to boil a kid in the milk of its mother, and with the decoction besprinkle, in a magical manner, the fields and gardens, thinking, by this means, they should make them fructify.

There was one ceremonial offering of the goat, under the Mosaic economy, of too extraordinary a character to be passed by unnoticed: we mean the scape-goat of the great day of atonement. The ceremony is described in Lev. xvi. Having received the two goats at the hands of the representatives of the congregation, the high priest proceeded to cast lots, for determining that which should be 'for the Lord,' i. e. sacrificed; and that which should be 'for Azazel,' i. e. for the scape-goat. This being settled, and the one marked out for the sacrifice having been slain, and the mercy-seat sprinkled with its blood, the scape-goat was to be sent away into the wilderness; which was done in the following manner: The high priest, and the stationary-men, who represented the whole congregation of the people, laid their hands upon its head, and confessed over it all the iniquities of the people, and all their transgressions in all their sins, putting them on the head of the goat, verses 20, 21. By this ceremony, says Witsius, the sinner deprecated the wrath of God, and prayed that it might fall on the head of that victim which he put in his own stead. This being done, it was delivered to the person appointed to lead it away, that he might bear away all their iniquities to a land of separation, where they should be remembered no more, verse 22. It is observable, that the two goats seem to make but one sacrifice; yet only one of them was slain. Hence, they have been thought to point out both the divine and human natures of the Saviour, and to typify both his death and resurrection. The goat which was slain prefigured his human nature and his death; and the scape-goat pointed out his resurrection: the one represented the atonement made for the sins of the world, as the ground of justification; the other, Christ's victory, and the removal of sin, in the sanctification of the soul.

The hair of the goat is of two kinds; the one, long and coarse,



is used in the manufacture of tent curtains, sails, and other fabrics of the same kind; the other is much finer, growing under the former, and is fabricated into stuffs, which almost equal silk in fineness. Of the coarse kind of hair, were manufactured the curtains for the tabernacle, (Exod. xxvi. 7; xxx. 26.) and it is still used in the East as a covering for tents.

The tresses of the bride, in the Canticles, are compared to a flock of goats from Mount Gilead, (ch. iv.) that is, to their hair, which is generally long and of a black color, or very brown, such as that of a lovely brunette may be supposed to be. The celebrated author of *Thoron and Aspasio*, however, gives the allusion a different turn. The amiableness of the church, in the exemplary conversation of true believers, is displayed by a copious growth of hair, which flows down from the parted forehead in decent curls. Thy hair is as a flock of goats that are seen afar off, and appear in a pendant attitude, from the summit of Mount Gilead, most agreeably adorning the place, and detaining the spectator's eye. This exposition takes in a circumstance which corresponds with the pensile position of the hair; renders the comparison more full and exact; and is, according to the observation of a most accurate judge, one of the most remarkable objects in such a prospect.

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### THE DOG.



Of all known quadrupeds, the dog is the most intelligent and faithful. Independent of the beauty of his form, his vivacity, force, and swiftness, he is possessed of all those internal qualifications that can conciliate the affections of man, and make the tyrant a protector. A natural share of courage, and an angry and ferocious

disposition, render the dog, in its savage state, a formidable enemy to all other animals; but these readily give way to very different qualities in the domestic dog, whose only ambition seems the desire to please. He is seen to come crouching along, to lay his force, his courage, and all his useful talents, at the feet of his master; he waits his orders, to which he pays implicit obedience; he consults his looks, and a single glance is sufficient to put him in motion; he is more faithful even than the most boasted among men; he is constant in his affections, friendly without interest, and grateful for the slightest favors; much more mindful of benefits received than injuries offered; he is not driven off by unkindness, but still continues humble, submissive, and imploring; his only hope, to be serviceable—his only terror, to displease; he licks the hand that has been just lifted to strike him, and at last disarms resentment by submissive perseverance. More docile than man, more obedient than any other animal, he is not only instructed in a short time, but he also conforms to the dispositions and the manners of those who command him. He takes his tone from the house he inhabits; like the rest of the domestics, he is disdainful among the great, and churlish among clowns. Always assiduous in serving his master, and only a friend to his friends, he is indifferent to all the rest, and declares himself openly against such as seem to be dependent like himself. When at night, the guard of the house is committed to his care, he seems proud of the charge; he continues a watchful sentinel, he goes his rounds, scents strangers at a distance, and gives them warning of his being upon duty. If they attempt to break in upon his territories, he becomes more fierce, flies at them, threatens, fights, and either conquers alone, or alarms those who have most interest in coming to his assistance; however, when he has conquered, he quietly reposes upon the spoil, and abstains from what he has deterred others from abusing; giving thus at once a lesson of courage, temperance, and fidelity.

It may seem strange, at first sight, that an animal possessing so many excellent qualities should almost uniformly be spoken of in scripture in such terms as indicate it to have been held in great contempt among the Jewish people. But for this there may have been more than one reason. In the first place, its vicious dispositions and habits are almost as numerous and important as the valuable qualities which we have noticed. Its insatiable voracity has become proverbial; and its wrathful and truculent disposition is such, that it not unfrequently attacks and maims a stranger without the slightest provocation. No animal, says Scaliger, is more unsocial; for in the largest buildings two of them can scarcely live peaceably together; and so great is its selfishness, that it desires to possess everything itself, and never submits to share its booty with others but by force. Its shameless impudence is well known; it is strongly alluded to in 2 Sam. iii. 7, 8, as well as in several other places. But it is probable that the circumstance which caused the dog to be branded with a mark of infamy under the Mosaic law, and to be

held in such contempt by the Jews, was, that it formed a conspicuous figure among the divinities of ancient Egypt.

It is well known, that the Turks also reckon the dog an unclean and filthy creature, and drive him from their houses. In Turkey, therefore, dogs are in common, not belonging to any particular owners, and guard rather the streets and districts than particular houses. This, indeed, seems to be the common treatment they meet with in the East; for even in Egypt they are now as much abhorred as they were formerly venerated. An idea may be formed in what detestation it is held in that country, when it is seen, that the most scurrilous epithet which they bestow on a European or a Christian is *a dog*. Compare 1 Sam. xvii. 43; xxiv. 14; 2 Sam. xvi. 9; 2 Kings viii. 13, &c.

To the prowling of these deserted and houseless animals the Psalmist evidently alludes, in speaking of his enemies, who way-laid his steps and watched for his life: 'They return at the evening; they make a noise like a dog, and go round about the city,' (Psalm lix. 6); and viewing, in the spirit of prophecy, their future punishment and destitution, he adds, 'And at evening let them return; and let them make a noise like a dog, and go round about the city. Let them wander up and down for meat, and grudge if they be not satisfied,' ver. 14, 15.

In the sacred writings, the reproachful epithet of *dog* is applied to the Gentiles, who were without the covenant of promise, (Matt. xiv. 26); to the despisers of religion, (ch. vii. 6); to the worldly and carnal professors who had thrust themselves into the ministerial office, (Phil. iii. 2); and to relentless persecutors, Ps. xxii. 16, 20,

## THE HOG.



THE hog, in its domestic state, is the most sordid and brutal animal in nature. The awkwardness of its form seems to influence its appetites, and all its sensations are as gross as its shape is unsightly. It seems possessed only of an insatiable desire of eating; and seems to make choice only of whatever other animals find the most offensive. By nature, it is the most stupid, inactive, and drowsy; if undisturbed, it would sleep half its time; but it is frequently awakened by the calls of appetite, which, when it has satisfied, it goes to rest again. Its whole life is thus a round of sleep and gluttony; and if supplied with sufficient food, it soon grows unfit even for its own existence; its flesh becomes a greater load than its legs are able to support, and it continues to feed lying down or kneeling, a helpless instance of indulged sensuality. Most of the diseases of this animal arise from intemperance: measles, imposthumes, and scrofulous swellings, are reckoned among the number.

The flesh of swine was expressly forbidden to the Jews, by the Levitical law (Lev. xi. 7,) on account of its filthy character, as some think, as well as because the flesh, being strong and difficult to digest, afforded a very gross kind of aliment, and was apt to produce cutaneous, scorbutic, and scrofulous disorders, especially in hot climates. Maimonides says, 'The principal reason wherefore the law prohibited the swine was, because of their extreme filthiness, and their eating so many impurities; for it is well known with what care and precision the law forbids all filthiness and dirt, even in the fields and in the camp, not to mention the cities. Now, had swine been permitted, the public places, and streets, and houses, would have been made nuisances.'

In the time of Isaiah, however, (chap. lxxv. 4), the eating of swine's flesh is enumerated among the abominations that had been adopted by the degenerate Hebrews; and their punishment is denounced

in the next chapter: 'They that sanctify and purify themselves in the gardens behind one tree in the midst, eating swine's flesh, and the abomination, and the mouse, shall be consumed together, saith the Lord,' ch. lxvi. 17.

In Matthew vii. 6, we have an injunction, which, as it stands in the English version, requires exposition: 'Give not that which is holy unto the dogs, neither cast ye your pearls before swine, lest they trample them under their feet, and turn again and rend you.' As this passage is now read, both the malignant acts are most improperly referred to the swine. Dr. A. Clarke has restored the proper sense by transposing the lines, and bishop Jebb, availing himself of the hint, has shown the passage to be one of those introverted parallelisms which abound in the sacred writings. In the corrected form it reads thus:

Give not that which is holy to the dogs;  
Neither cast your pearls before the swine;  
Lest they trample them under their feet,  
And turn about and rend you.

Here the first line is related to the fourth, and the second to the third; and the sense becomes perfectly clear, on thus adjusting the parallelism:

Give not that which is holy to the dogs,  
Lest they turn about and rend you;  
Neither cast your pearls before the swine,  
Lest they trample them under their feet.

The more dangerous act of imprudence, with its fatal result, is placed first and last, so as to make and to leave the deepest practical impression. To cast pearls before swine, is to place the pure and elevated morality of the gospel before sensual and besotted wretches.

To give that which is holy to the dogs, is to produce the deep truths of Christianity before the malignant and profane, who will not fail to add injury to neglect: who will not only hate the doctrine, but persecute the teacher. In either case, an indiscreet and over-profluent zeal may do serious mischief to the cause of goodness; but in the latter case, the injury will fall with heightened severity, both on religion, and on religion's injudicious friends. The warning, therefore, against the dogs, is emphatically placed at the commencement and the close.

## SECTION II.

### FEROCIOUS WILD BEASTS.

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HAVING noticed the several animals brought under the subjection of man, that are mentioned in scripture, we proceed to notice those which have hitherto eluded his efforts for their subjugation, and still maintain their wild and savage independence. Among these, beasts of prey naturally claim the first place.

#### THE LION.



THE outward form of this noble animal seems to bespeak his internal generosity. His figure is striking, his look confident and bold, his gait proud, and his voice terrible. His stature is not overgrown, like that of the elephant, or rhinoceros; nor is his shape clumsy, like that of the hippopotamus, or the ox. It is compact, well proportioned, and sizeable; a perfect model of strength, joined with agility. It is muscular and bold, neither charged with fat nor unnecessary flesh. It is sufficient but to see him in order to be assured of his superior force. His large head, surrounded with a

dreadful mane, all those muscles that appear under the skin swelling with the slightest exertions, and the great breadth of his paws, with the thickness of his limbs, plainly evince that no other animal in the forest is capable of opposing him. His face is very broad, and is surrounded with very long hair, which gives it a most majestic aspect. His huge eyebrows; his round and fiery eye-balls, which, upon the least irritation, seem to glow with peculiar lustre; together with the formidable appearance of his teeth, exhibit a picture of terrific grandeur which it is impossible to describe. The length of a large lion is between eight and nine feet; and its height about four feet and a half. The top of the head, the temples, the cheeks, the under jaw, the neck, the breast, the shoulder, the hinder part of the legs, and the belly are furnished with long hair, whilst all the rest of the body is covered with very short hair, of a tawny color. The mane grows every year longer as the animal grows older; but the lioness is without this appendage at every age. It is usually supposed that the lion is not possessed of the sense of smelling in such perfection as most other animals; and it is also observed, that too strong a light greatly incommodes him: his eyes, like those of the cat, being fitted for seeing best in the dark. For this reason, he seldom appears in open day, but ravages chiefly by night. See Psalm civ. 20, 22.

Accustomed to measure his strength with every animal he meets, the act of conquering renders the lion intrepid and terrible. In those regions where he has not experienced the dangerous arts and combinations of man, he has no apprehensions from his power. He boldly faces him, and seems to brave the force of his arms. Wounds rather serve to provoke his rage than to repress his ardor, nor is he daunted by the opposition of numbers; a single lion of the desert often attacks an entire caravan, and, after an obstinate combat, when he finds himself overpowered, instead of flying he continues to combat, retreating, and still facing the enemy till he dies. To this trait in his character Job alludes, when he hastily said to the Almighty, 'Thou huntest me as a fierce lion,' ch. x. 16. We hence see, also, the propriety with which Hushai describes the valiant among the troops of Absalom, as possessing the 'heart of a lion,' 2 Sam. xvii. 10.

When incited by hunger, the lion boldly attacks all animals that come in his way; but as he is so formidable an enemy, and as they all seek to avoid him, he is often obliged to hide, in order to take them by surprise. For this purpose he crouches on his belly, in some thicket, or among the long grass, which is found in many parts of the forest; and in this retreat he continues, with patient expectation, until his prey comes within a proper distance, when he springs after it, fifteen or twenty feet from him, and often seizes it at the first bound. To this feature in his character, there are many beautiful allusions in the scriptures.—'Wilt thou hunt the prey for the lion, or fill the appetite of the young lions, when they couch in their dens, and abide in the covert to lie in wait?' Job xxxviii. 39, 40. David

pourtraying the character of the oppressor and extortioner, says, 'He lieth in wait secretly as a lion in his den: he lieth in wait, to catch the poor—he croucheth, and humbleth himself, that the poor may fall by his strong ones,' Psalm x. 9, 10. How forcibly does this language depict the breathless anxiety, with which the wicked wait the accomplishment of their iniquitous purposes!

The roaring of the lion is said to be so loud, that when it is heard in the night, and re-echoed by the mountains, it resembles distant thunder: the whole race of animals within its sound stand appalled, regarding it as the sure prelude to destruction. Hence the prophet says, 'The lion has roared, who will not fear? The Lord God has spoken, who can but prophesy?' Amos iii. 8. So also Hosea: 'He shall roar like a lion: when he shall roar, then the children shall tremble from the west,' ch. xi. 10. But it is when the lion summons up all his terrors for the combat that his voice is most terrible. Lashing his sides with his long tail, throwing his mane in every direction, which seems to stand like bristles round his head, the skin and muscles of his face all in agitation, his huge eye-brows half covering his glaring eye-balls, his monstrous teeth, his prickly tongue, and his destructive claws, all exhibited to view, he roars forth his formidable and terror-inspiring cry. This furnishes the sacred writers with several beautiful images. Jeremiah foretells the terrible visitations of the divine anger, in language derived from this appalling circumstance: 'The Lord shall roar from on high, and utter his voice from his holy habitation; he shall mightily roar upon his habitation,' ch. xxv. 30.

After depriving his victim of life, which he generally effects by a stroke of his paw, the lion tears it in pieces, breaks all its bones, and swallows them with the rest of the body. To these circumstances there are frequent allusions in the scripture. 'Save me from all them that persecute me, and deliver me, lest he tear my soul like a lion, rending it in pieces, where there is none to deliver,' Ps. vii. 1, 2. 'And the remnant of Jacob shall be among the Gentiles in the midst of many people, as a lion among the beasts of the forest, as a young lion among the flocks of sheep; who, if he go through, both treadeth down, and teareth in pieces, and none can deliver,' Mic. v. 8. Nor is his voracity left unnoticed. Buffon assures us that the lion not only devours his prey with the utmost greediness, but that he devours a great deal at a time, and generally fills himself for two or three days to come. Hence, David compares his enemies to 'a lion that is greedy of his prey,' (Ps. xvii. 12,) and JEHOVAH, threatening Israel for its transgressions, declares that he will 'devour them like a lion,' Hos. xiii. 8. The prophet Nahum describes, with equal energy and elegance, the care with which the lion provides for its mate and young ones: 'Where is the dwelling of the lions, and the feeding-place of the young lions, where the lion, even the old lion walked, and the lion's whelp, and none made them afraid? The lion did tear in pieces enough for his whelps, and strangled for his lionesses, and filled his holes with



prey, and his dens with ravin,' ch. ii. 11, 12. Buffon, following Phay, Eustathius, and other ancient naturalists, informs us, that while young and active, the lion subsists by hunting, and seldom quits the deserts or the forests, where he finds plenty of wild animals; but when he grows old, heavy, and less fit for the exercise of hunting, he approaches frequented places, and becomes more dangerous to man and the domestic animals. It has, indeed, been remarked, that when he sees men and animals together, he attacks the latter, and never the former, unless any man strike him; for in this case he is wonderfully alert in distinguishing the person who hurts him, and he instantly quits his prey to take vengeance on the offender.

These traits in his character explain the reason that God so often threatens to be as a lion to his ancient people. He discerns at once who it is that transgresses his law, and is prompt in taking vengeance on the sinner. They also throw light on the passage in *Hosea*: 'For I will be unto Ephraim as a great lion,' that leaves the forest and approaches the habitations of men, and is therefore more to be dreaded; 'and to the house of Judah as a young lion,' that hunts his prey in the desert or the forest, and is therefore less to be feared, ch. v. 14. How exactly this corresponds with historical fact, is well known to every careful reader of the scriptures; for Ephraim, or the ten tribes, were driven away from their own land into a distant region, where they were doomed to suffer a protracted exile; while Judah continued to hold his possessions a hundred and thirty-three years longer, and when carried into captivity at the end of that period, by the king of Babylon, it was only for the short term of seventy years, till the land had enjoyed her sabbaths.

The lion, like most other animals of the cat kind, is kept off by large fires, which the inhabitants of Africa and Asia, where he is chiefly found, light during the night to preserve their flocks and herds. But these, even added to the barking of the dogs, and the continued shoutings of the shepherds, are sometimes found insufficient to deter his approach. He has been known to outbrave all the dangers which could be presented to him under such circumstances, and boldly leaping into the midst of the fold, to carry off a sheep or a goat. How beautifully does the prophet allude to this, when he promises the Divine interposition on behalf of God's ancient people: 'For thus hath the Lord spoken unto me, like as the lion and the young roaring lion on his prey, when a multitude of shepherds is called forth against him, he will not be afraid of their voice, nor abase himself for the noise of them: so shall the Lord of hosts come down to fight for mount Zion, and for the hill thereof,' *Isaiah xxxi. 4.*

The lion is made the symbol of our exalted Redeemer. He was a lamb in his sufferings and death, but he became 'the lion of the tribe of Judah,' when he burst asunder the bands of death, forced open the grave's devouring mouth, and returned to his father a

triumphant conqueror over all the powers of darkness. He is clothed with glorious majesty, and girt about with invincible might. No enemy can disturb the tranquillity of his fearless heart, nor interrupt the progress of his operations; no movement of providence, but he is qualified to guide; no work of judgment or mercy, but he is able to perform. 'He speaks, and it is done; he commands, and it stands fast—none can stay his hand, or say unto him, What dost thou?' In the rapid diffusion of the gospel and the conversion of many nations to the Christian faith, which commenced in a few days after his ascension, were fulfilled the words of Joel: 'The Lord also shall roar out of Zion, and utter his voice from Jerusalem; and the heavens, and the earth shall shake, and the Lord will be the hope of his people, and the strength of the children of Israel,' Joel iii. 16. Nor is the preaching of the gospel improperly compared to the roaring of a lion, for it has been heard in every part of the world, and has not only struck the ear, but by its energy has opened a way for itself into the heart, and produced a concern about salvation which neither length of time nor change of circumstances could subdue.

The lion symbolizes also the strength, generosity, and terrible presence of an angel; for, in the prophecies of Ezekiel, the living creatures, or cherubim, the ministers of divine providence, had each of them four faces; the face of a man, and the face of a lion, on the right side; and the face of an ox and the face of an eagle, on the left side, Ezekiel i. 10. The apostle John was favored with a vision of the same kind in Patmos: 'In the midst of the throne, and round about the throne, were four living creatures full of eyes before and behind. And the first living creature was like a lion, and the second like a calf, and the third had a face as a man, and the fourth was like a flying eagle.' In both visions, the terrible majesty of God, in the ministration of angels toward the enemies of his glory, is symbolized by the lion; their constancy, patience, firmness, and assiduity in performing the commands of their Maker, by the ox; their humanity, gentleness, and philanthropy, by the face of a man; and by the face of an eagle, the vigor, the agility, and the sublime tendencies of their celestial nature. Every one of them exhibits a high degree of excellence; the lion holds the first place among wild beasts, the eagle among the birds, an ox among the cattle, and all submit to the supreme authority of man. Of these, observes Bochart, two are wild, the lion and the eagle; two are tame, man and the ox: those to strike terror into rebels; these to impart consolation to the pious. The lion pursues his prey upon the earth, the eagle among the clouds of heaven; to show that these angelic ministers of providence equally control the proceedings of men that crawl upon the ground, and the more powerful and rapid movements of apostate spirits in the regions of the air.

The strength and power of the Jewish nation are often described in the sacred volume by the same symbol. 'Behold,' cried Balaam, when from the top of Pisgah he looked down on the innumerable tents of Israel, 'the people shall rise up as a great lion, and lift up

himself as a young lion; he shall not lie down until he eat of the prey, and drink the blood of the slain.' This prediction received its accomplishment in the signal victories which the armies of Israel, under the conduct of Joshua, obtained over the five nations of Canaan. They did not rest, till, completely victorious, they had reduced the whole country to their obedience. The forces of Joshua did not, like some uncivilized hordes in modern times, literally 'eat of the prey and drink the blood of the slain,' for such inhuman conduct was equally opposed to the character of their God, and the whole tenor of their law. The clause is merely a continuation of the metaphor, and a hyperbolic description of the complete conquest, which, by the favor of God, awaited their arms. Such hyperbolic expressions are frequent in the sacred volume; and when viewed in the light of other scriptures, admit of a sense equally consistent and profitable. Thus, in the reproof which the Psalmist addresses to the wicked judges, he declares, 'the righteous shall wash his feet in the blood of the wicked,' (Psalm lviii. 11); and in his prayer at the removing of the ark: 'The Lord said, I will bring again from Bashan, I will bring my people again from the depths of the sea: that thy foot may be dipped in the blood of thine enemies, and the tongue of thy dogs in the same,' Psalm lxviii. 4. These phrases only denote that the victory which was to crown their exertions, should be completely decisive. Balaam adds, in the same prophecy, 'He crouched, he lay down as a lion, and as a great lion; who shall stir him up?' He was, in future times, to subdue the land of Canaan so completely, that no enemy should presume to disturb his repose; which was accomplished in the reign of David and of Solomon his son, when, by the heroic valor of the former, and the unparalleled wisdom of the latter, the whole East was awed and charmed into peace and amity.

The symbols that represented the Jewish people were often applied to particular tribes, of which a striking instance occurs in the farewell benediction of Jacob: 'Judah is a lion's whelp: from the prey, my son, thou art gone up; he stooped down, he crouched as a lion, and as an old lion; who shall rouse him up?' Genesis lxix. 9. And of Gad, Moses said, 'Blessed be he that enlargeth Gad: he dwelleth as a lion, and teareth the arm with the crown of the head,' Deut. xxxiii. 20, 22.

But the sacred writers often allude to the savage disposition of the lion; and in all these instances the name is used in a bad sense. Thus, the great adversary of mankind is compared to a roaring lion, that walketh about, seeking whom he may devour, 1 Peter v. 8. Furious and cruel as the lion when, within a single leap of his prey, he thirsts for the destruction of poor mortals, as intensely as that famished destroyer for the blood of the slain, and exerts still greater and more unwearied activity to accomplish his purpose. The name which is imposed upon the arch-fiend, is, with much propriety, assigned to the wicked, the victims and instruments of his cruelty and injustice. 'The roaring of the lion, and the voice of the

ferce lion, and the teeth of the young lions are broken.' That the wicked are intended in this passage, is evident from the context: 'Even as I have seen, they that plough iniquity and sow wickedness, reap the same. By the blast of God they perish, and by the breath of his nostrils are they consumed,' Job iv. 8, 9, 10. These are only a few of the numerous instances in which the sacred writers use the name to express the temper and conduct of wicked men. Not only the vicious and profane, the cruel and the unjust, in the private walks of life, but also the sceptred oppressor, the blood-stained conqueror, the warlike nation, are stigmatized in the holy scriptures, and held up to the execration of all mankind, under this odious name: 'Their roaring shall be like a lion; they shall roar like young lions: yea, they shall roar and lay hold of the prey, and shall carry it away safe, and none shall deliver it,' Isaiah v. 29. But the name is not confined to the human character; it is extended also to everything hurtful or destructive to mankind. The sword, for example, is, by the prophet, compared to the lion on account of the desolations which it is the means of accomplishing: 'Your own sword hath devoured your prophets like a destroying lion,' Jer. ii. 30. If these statements have not removed any of the difficulties which the biblical reader meets with in his progress, they prove beyond a doubt the closeness and accuracy with which the sacred writers copy nature, and the admirable fitness and propriety of their allusions; and this is no insignificant service to the interests of religion.

## THE LEOPARD.



THE Hebrew name (Ninrah) of this animal is taken from its spotted color. By the English it is almost indiscriminately called the *Panther*, or *Leopard* of Senegal, where it is chiefly found. Its length is about four feet from the nose to the origin of the tail, which is about two feet long. The predominant color is yellowish, and the spots with which it is covered are black. The head is of a moderate length, the ears are pointed, the eyes are of a pale yellow, and its whole aspect is fierce and cruel. Its disposition is said nearly to resemble that of the tiger, yet it is generally considered to be the less fierce of the two. The manner in which the leopard seizes its prey is, however, similar to that of the lion; rushing from its concealment, it at once bounces on its victim, with a horrid roar. Its voice, at this time, is said to be hideous beyond conception.

The scripture references to this animal are not numerous, but like all its other references they are founded on the strictest propriety. Jeremiah refers in one place to its spotted skin, (ch. xii. 23), and in another (ch. v. 6,) to its artful ambuscades; a feature in its character to which Hosea also alludes, (ch. xiii. 7); 'as a leopard by the way will I observe them'—doubtless, to punish them for their flagrant and unrepented crimes. Habakkuk, describing the rapid march of the Chaldeans upon Jerusalem, compares the movement of their horses to the extraordinary swiftness of this animal: 'Their horses also are swifter than leopards,' ch. i. 8. But the most beautiful allusion to this creature is in Isaiah's prophecy of the happy times of the Messiah's reign:—

The wolf also shall dwell with the lamb,  
 And the leopard shall lie down with the kid;  
 And the calf, and the young lion, and the fawning together;  
 And a little child shall lead them.

How great and extraordinary must such a change appear, when it is recollected that the leopard never can be satiated with prey, and that man has never yet subdued the ferocity of his natural disposition!

It seems that these animals were numerous in Palestine, as there are places which bear names indicative of having been their haunts. In the tribe of Gad there was a town named Beth-Nimrah—*leopard's house*, (Numb. xxxii. 36; compare verse 3); Isaiah and Jeremiah speak of the 'waters of Nimrim,' i. e. of the leopards—not far distant, (Isa. xv. 6; Jer. xlviii. 34); and Solomon strongly intimates that they were numerous on the mountains of Lebanon, Cant. iv. 8.

## THE WOLF.

THIS animal is something larger than the English breed of mastiffs, being in length, from the tip of his nose to the insertion of his tail, about three feet seven inches long, and about two feet five inches high. He appears, in every respect, stronger than the dog; and the length of his hair contributes still more to his robust appearance. The color of his eye-balls is of a fiery green, which gives his visage a fierce and formidable air. Externally and internally the wolf so much resembles the dog, that naturalists formerly considered them to be the same animal. But, singular as it may appear, there exists between them the most perfect and uncompromising antipathy.

The wolf is one of those animals whose appetite for animal food; is the most vehement, and whose means of satisfying this appetite are the most various. Nature has furnished him with strength, cunning, agility, and all those requisites which fit an animal for pursuing, overtaking, and conquering its prey; and yet, with all these, it most frequently dies of hunger, for it is the declared enemy of man. He is naturally dull and cowardly; but being frequently disappointed, and as often reduced to the verge of famine, he becomes ingenious from want, and courageous from necessity. When pursued with hunger, he braves danger, and comes to attack those animals which are under the protection of man; particularly such as he can readily carry away. When this excursion has succeeded, he often returns to the charge, until, having been wounded, or hard pressed, by the dogs or the shepherds, he hides himself by day in the thickest coverts, and only ventures out at night. He then sallies forth over the country, keeps peering round the villages, carries off such animals as are not under protection, attacks the

sheep-folds, scratches up and undermines the thresholds of doors where they are housed, enters furiously, and destroys all before he begins to fix upon and carry off his prey. When these sallies do not succeed, he returns to the thickest part of the forest, content to pursue those smaller animals which, even when taken, afford him but a scanty supply. He there goes regularly to work, follows by the scent, opens to the view, still keeps following, hopeless himself of overtaking the prey, but expecting that some other wolf will come in to his assistance, and is content to share the spoil. At last, when his necessities are very urgent, he boldly faces certain destruction; he attacks women and children, and sometimes ventures even to fall upon men, becomes furious by his continual agitations, and ends his life in madness.

The scripture account of this animal corresponds precisely with the description furnished by naturalists. His ignoble and rapacious disposition is alluded to in the patriarch's character of the tribe of Benjamin: 'Benjamin is a ravening wolf: in the morning he shall devour the prey, and in the evening he shall divide the spoil,' Genesis xlix. 27. The whole history of the tribe shows the propriety of this application. Possessing some courage, and much ferocity, they were often embroiled in quarrels and petty warfare with the neighboring tribes; and feelings of desperation, under circumstances which their own conduct had created, sometimes impelled them to attempt and effect feats of extraordinary valor. See Judges xix. 20.

The iniquitous and rapacious conduct of the rulers of Israel, in the times of Ezekiel and Zephaniah, is most expressively described by a reference to this animal. 'Her princes in the midst thereof,' says the former prophet, 'are like wolves ravening the prey, to shed blood, and to destroy souls, to get dishonest gain,' ch. xxii. 27. The latter prophet adds another circumstance, which materially illustrates the character of the wolf: 'Her princes within her are roaring lions, her judges are evening wolves; they gnaw not the bones till the morrow,' ch. iii. 3. That is, 'Instead of protecting the innocent, and restraining the evil doer, or punishing him according to the demerit of his crimes, they delight in violence and oppression, in blood and rapine; and so insatiable is their cupidity, that, like the evening wolf, they destroy more than they are able to possess: 'they gnaw not the bones till the morrow'; or, so much do they delight in carnage, that they reserve the bones till next day, for a sweet repast.'

To its nocturnal wanderings and attacks, when it is more than ordinarily fierce and sanguinary, Jeremiah alludes, in his threatenings against the ungodly members of the Jewish Church: 'Wherefore a wolf of the evenings shall spoil them,' (ch. v. 6); as does also Habakkuk, in his terrible description of the Chaldean invasion: 'Their horses also are swifter than the leopards, and are more fierce than the evening wolves,' ch. i. 8.

The morose and unsocial traits in the character of the wolf,

will help us to form some conception of the mighty change which the doctrines of the gospel must effect in the character and dispositions of men, to justify the figurative and beautiful language of the evangelical prophet: 'The wolf also shall dwell with the lamb,' (Isa. xi. 6); and an attachment will be formed between them, for 'they shall eat together,' ch. lxxv. 25. See also Matt. x. 16; Luke x. 3; John x. 12.

From what has been said, the reader may form an opinion of the character of those false teachers, whose object was to 'make a gain of godliness,' in the primitive church, and whom the blessed Redeemer, as well as his inspired apostles, designates *wolves*. 'Beware of false prophets, which come to you in sheep's clothing, but inwardly are ravening wolves,' Matt. vii. 15. 'I know,' says Paul to the elders of the Ephesian church, 'I know that after my departure shall grievous wolves enter in among you, not sparing the flock,' Acts xx. 29.

## THE HYÆNA.



In the English Bible, we read in 1 Sam. xiii. 18, of the valley of Zeboim—and in Jer. xii. 9, of 'a speckled bird.' In both these places the same word is used, and that word, there is little doubt, refers to the hyæna.

The size of the hyæna is that of a very large dog, weighing about a hundred weight, having a strong bristly mane, with hairs seven inches long. The fore legs are two feet in length, the foot flat,



and about two inches broad. The animal stands seemingly uneasy on the hind legs; and it is observable, that, when it is at first dislodged from cover, it limps so very awkwardly, that it appears as if the hinder legs were broken or dislocated. By running some time, however, this stiffness leaves it, and it sweeps along with great swiftness. Its color is of a yellowish brown, marked with bands of different colors, over its neck and legs. His manner of holding the head is remarkable; somewhat like a dog, pursuing the scent with his nose near to the ground. But no words can give an adequate idea of the animal's figure, deformity, and fierceness. More savage and untameable than any other quadruped, it seems to be forever in a state of rage and rapacity, forever growling, except when receiving its food. Its eyes then glisten, the bristles of its back all stand upright, its head hangs low, and yet its teeth appear; all which give it a most frightful aspect, which a dreadful howl tends to heighten. As this is loud and frequent, it might, perhaps, have been sometimes mistaken for that of a human voice, in distress, and have given rise to the accounts of the ancients, who tell us, that the hyæna makes its moan, to attract unwary travellers, and then to destroy them; however this be, it seems the most untractable, and, for its size, the most terrible of all other quadrupeds; nor does its courage fall short of its ferocity; it defends itself against the lion, is a match for the panther, attacks the ounce, and seldom fails to conquer. It is an obscure and solitary animal, to be found chiefly in the most desolate and uncultivated parts of the torrid zone, of which it is a native.

The lion regards the face of man with respect, and, when not oppressed by the force of hunger, venerates that majesty impressed by the Creator on the human form; but this villain of the desert pays no kind of respect to venerable age, or to the captivating charms of beauty. All fall indiscriminately before his voracious rapacity; and what is still more extraordinary, the dead of his own species are not exempt from the cravings of his ferocious appetite. Abyssinia, and chiefly about the sources of the Nile, are the principle scenes of his murders and devastations. In Atbara, the Arabs plough, sow, dig wells, have plenty of water, and the land yields large crops. But when discord arises among the tribes, they commence hostilities by mutually burning down the crops, when nigh ripe, and rendering a country, naturally fertile, one uniform scene of desolation and misery. Famine ensues, for they have no stores left; the houses are burnt down, their wells filled up, the men slain by the victorious party are left upon the fields, and the remainder, destitute, forlorn, without strength or hope, are assailed by troops of hyænas, who find little or no difference of resistance between slaying the living and devouring the dead. Thus the miserable multitude are destroyed, till they leave not a single survivor to announce to some neighboring nation the fatal catastrophe that has befallen their country. The inhuman natives burying neither friend nor foe, the innumerable carcasses of the slain afford ample

supply of human carrion to the ravenous hyænas. 'In my return, through the desert,' says Mr. Bruce, 'the whole country was strewed with the bones of the dead. Horrid monuments of the victories of this savage animal, and of man more cruel than he!'

One circumstance is very remarkable in the nature of this animal, and that is, his mortal aversion to dogs. No dog, however fierce, can be prevailed upon to engage the hyæna. This aversion and mutual antipathy was proverbial in very ancient times, for the author of Ecclesiasticus asks, 'What agreement is there between the hyæna and the dog?' Chap. xiii. 18.

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### THE FOX, OR JACKAL.



It is somewhat doubtful, whether the fox of scripture be the common fox, or the jackal—the little eastern fox, as Hasselquist calls him.

The jackal, or Thaleb, as it is called in Arabia and Egypt, is said to be of the size of a middling dog, resembling the fox in the hinder parts, particularly the tail; and the wolf in the fore parts, especially the nose. Its legs are shorter than those of the fox, and its color is of a bright yellow; or in the warmest climates rather of a reddish brown.

Although this species of the wolf approaches very near to that of the dog, yet the jackal seems to be placed between them; to the savage fierceness of the wolf, it adds the impudent familiarity of the dog. Its cry is a howl, mixed with barking, and a lamentation resembling that of human distress. It is more noisy in its pursuits

even than the dog, and more voracious than the wolf; though it never goes alone, but always in a pack of forty or fifty together. They are very little afraid of mankind, but pursue their game to the very doors, without testifying either attachment or apprehension. They enter insolently into the sheep-folds, the yards, and the stables, and, when they can find nothing else, devour the leather harness, boots, and shoes, and run off with what they have not time to swallow. They not only attack the living, but the dead; scratching up with their feet the new-made graves, and devouring the corpse. They always assist each other as well in this employment of exhumation, as in that of the chase; and while at their dreary work, exhort each other by a most mournful cry, resembling that of children under chastisement. Like all other savage animals, when they have once tasted human flesh, they can never after refrain from pursuing mankind. They watch the burying grounds, follow armies, and keep in the rear of caravans.

Jackals seldom appear abroad till night-fall. Having scented the prey, they sally forth in troops of thirty or forty in number, and pursue it the whole night with unceasing assiduity, keeping up a horrid howl, and, with great perseverance, at last drive down their victim. The lion, the tiger, and the panther, whose appetites are superior to their swiftness, attend to the jackal's cry, and just at the moment it supposes itself going to share the fruits of its labor, one of these animals comes in, satiates himself upon the spoil, and his poor provider must be content with the bare carcass he leaves behind. From eastern travellers we learn, that the jackal feeds upon roots and fruit, as well as upon animal flesh, and that it frequently roots up plants to satisfy its appetite.

Such is the character which naturalists have furnished of the jackal, or Egyptian fox: let us see what references are made to it in scripture. To its carnivorous habits there is an allusion in Psalm lxiii. 9, 10: 'Those that seek my soul, to destroy it, shall go into the lower parts of the earth: they shall fall by the sword; they shall be a portion for foxes;' and to its ravages in the vineyard, Solomon alludes in Cant. ii. 15: 'Take us the foxes, the little foxes, that spoil the vines: for our vines have tender grapes.' The meaning is, that false teachers corrupt the purity of doctrine, obscure the simplicity of worship, overturn the beauty of appointed order, break the unity of believers, and extinguish the life and vigor of Christian practice. These words of Ezekiel may be understood in the same sense: 'O Jerusalem! thy prophets, (or, as the context gives the sense,) thy flattering teachers, are as foxes in the deserts,' chap. xiii. 4. This name they receive, because, with vulpine subtilty, they speak lies in hypocrisy. Such teachers the apostle calls 'wolves in sheep's clothing;' deceitful workers, who, by their cunning, subvert whole houses; and whose word, like the tooth of a fox upon the vine, eats as a canker.

On a particular occasion, our Lord speaking of Herod, who had threatened to kill him, applied to him, metaphorically, the name

of the fox or jackal; 'Go, tell that fox—that crafty, cruel, insidious, devouring creature—that jackal of a prince—who has indeed expressed his enmity by his threats, as jackals indicate their mischievous dispositions by their harkings; and who yelps in concert with other of my enemies, jackal-like—go, tell him that I am safe from his fury to-day and to-morrow; and on the third day I shall be completed,—completely beyond his power;'—alluding, perhaps, to his resurrection on the third day. There have been some doubts as to the propriety of our Redeemer's speaking in such terms of a civil ruler, whose subject he was, and whose character he was therefore bound to respect and to honor. For these scruples, however, there is no ground; the character of Herod as a cruel, insidious, and crafty prince, was too notorious to be disguised from any part of his subjects; and he who knew his heart as well as witnessed his conduct, could speak with certainty as to his dispositions and motives. Besides this, such metaphorical applications as these are much more common in the East than here, and would, therefore, not appear so strong to our Lord's attendants as to us.

The expedient of Samson (Judges xv. 4, 5,) has frequently been made the butt of ridicule, by the unbeliever in divine revelation; but without reason. Volney says, 'That, in Syria the wolf and the real fox are very rare, though there is a prodigious quantity of the middle species, named *shacal*, which go in droves.' And again: 'Jackals are concealed by hundreds in the gardens, and among ruins and tombs.' Where, then, was the difficulty for Samson to procure three hundred of these animals, especially as the time during which he had to provide them for his purpose was not limited to a week or a month? Besides, it should be recollected, that Samson sustained the highest office in the commonwealth, and could be at no loss for persons to assist him in his enterprise.

From the book of Exodus we learn, that before the passover, that is, before the fourteenth day of the month Abib, or March, *barley* in Egypt was in the ear, chap. xii. 18; xiii. 4. And in chap. ix. 31, 32, it is said that the *wheat* at that time was not grown up. Barley harvest, then, in Egypt, and so in the country of the Philistines which bordered upon it, must have fallen about the middle of March. Wheat harvest, according to Pliny, was a month later. Therefore, wheat harvest happened about the middle of April.

## THE WILD BOAR.

THIS animal, which is the original of all the varieties of the hog kind, is by no means so stupid nor so filthy a beast as that we have reduced to tameness. He is something smaller than the domestic hog, and does not so vary in his color, being always found of an iron grey, inclining to black : his snout is much larger than that of the tame animal, and the ears are shorter, rounder, and black ; of which color are also the feet and the tail. But the tusks are larger than in the tame breed ; they bend upwards circularly, and are exceedingly sharp at the points.

The wild boar roots up the ground in a different manner from the common hog ; the one turns up the earth in little spots here and there ; the other ploughs it up like a furrow, and does irreparable damage in the cultivated lands of the farmer, destroying the roots of the vine and other plants. From this we may see the propriety with which the Psalmist represents the subversion of the Jewish commonwealth, under the allegory of a vine, destroyed by a boar : 'Thou hast brought a vine out of Egypt ; thou hast cast out the heathen, and planted it. Thou preparedst room before it, and didst cause it to take deep root, and it filled the land. She sent out her boughs unto the sea, and her branches unto the river. Why hast thou broken down her hedges, so that all they which pass by the way do pluck her ? The boar out of the wood doth waste it, and the wild beast of the field doth devour it,' Psalm lxxx. 8—13. If this Psalm was written, as is supposed, during the Babylonian captivity, the propriety of the allegory becomes more apparent. Not satisfied with devouring the plants and fruit which have been carefully raised by the skill and attention of the husbandman, the ferocious boar lacerates and breaks with his powerful tusks the roots and branches of the surrounding vines, and tramples them beneath his feet. The reader will easily apply this to the conduct pursued by the Chaldeans towards the Jewish state, whose desolation is thus pathetically bewailed by the prophet : 'The Lord hath trodden under foot all my mighty men in the midst of me : he hath called an assembly against me to crush my young men : the Lord hath trodden the virgin, the daughter of Judah, as in a winepress,' Lam. i. 15.

The boar is extremely fond of marshes, fens, and reedy places ; a disposition which is probably referred to in Psalm lxviii. 30 : 'Rebuke the company of the spearmen,'—or, as it is literally, 'the beast of the reeds,' or canes.

## THE BEAR.



IN the Hebrew, this animal is very expressively called the *grumbler*, or *growler*.

There are three kinds of the bear known: the white, the black, and the brown. Of the two former the scripture does not speak; the latter kind being the only one known in the Eastern regions. The brown bear, says Buffon, is not only savage but solitary; he takes refuge in the most unfrequented parts, and the most dangerous precipices and uninhabited mountains. It chooses its den in the most gloomy parts of the forest, in some cavern that has been hollowed by time, or in the hollow of some old enormous tree. The disposition of this animal is most surly and rapacious, and his mischievousness has passed into a proverb. His appearance corresponds with his temper: his coat is rugged, his limbs strong and thick, and his countenance, covered with a dark and sullen scowl, indicates the settled moroseness of his disposition. The sacred writers frequently associate this formidable enemy with the king of the forest, as being equally dangerous and destructive. Thus, Amos, setting before his incorrigible countrymen the succession of calamities which, under the just judgment of God, was about to befall them, declares that the removal of one would but leave another equally grievous: 'Wo unto you that desire the day of the

Lord! To what end is it for you? The day of the Lord is darkness, and not light. As if a man did flee from a lion, and a bear met him,' Amos v. 18, 19. And Solomon, who had closely studied the character of the several individuals of the animal kingdom, compares an unprincipled and wicked ruler to these creatures: 'As a roaring lion and a ranging bear, so is a wicked ruler over the poor people,' Proverbs xxviii. 15.

The she-bear is said to be even more fierce and terrible than the male, especially after she has cubbed. So strong is her attachment to her young, and so extreme the jealousy with which she protects them, that no stranger, whether man or beast, is suffered to intrude on her solitude with impunity. This circumstance finely illustrates the beautiful imagery of the prophet, employed to delineate the amazing change which the gospel of Christ will be the instrument of effecting in the human heart, and the delightful harmony which will follow in its train: 'And the cow and the bear shall feed. Their young ones shall lie down together,' Isaiah xi. 7.

To the fury of the female bear when she happens to be robbed of her young, there are several striking allusions in scripture. Those persons who have witnessed her under such circumstances, describe her rage to be most violent and frantic, and as only to be diverted from the object of her vengeance with the loss of her life. How terrible, then, was the threatening of the incensed *ЖЕHOVAH*, in consequence of the numerous and aggravated iniquities of the kingdom of Israel, as uttered by the prophet Hosea—'I will meet them as a bear bereaved of her whelps, and will rend the caul of their heart!' Chap. xiii. 8.

The execution of this terrible denunciation, in the invasion of the land by the Assyrian armies, and the utter subversion of the kingdom, is well known to every reader of scripture.

In the vision of Daniel, where the four great monarchies of antiquity are symbolised by different beasts of prey, whose qualities resembled the character of these several states, the Medo-Persian empire is represented by a bear, which raised itself up on one side, and had between its teeth three ribs; and they said thus unto it: 'Arise, devour much flesh,' Daniel vii. 5. All the four monarchies agreed in their fierceness and rapacity; but there were several striking differences in the subordinate features of their character, and their mode of operation, which is clearly intimated by the different characters of their symbolical representatives. The Persian monarchy is represented by a bear, to denote its cruelty and greediness after blood; and in this imputation the prophet Jeremiah unites, by designating the Persians 'the spoilers,' chap. li. 48, 56. The learned Bochart has enumerated several points of resemblance between that character of the Medo-Persians and the dispositions of this animal,

## SECTION III.

### WILD INOFFENSIVE ANIMALS.

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#### THE WILD ASS.

THIS is a much handsomer and more dignified animal than the common or domestic ass. Oppian describes it as 'handsome, large, vigorous, of stately gait, his coat of a silvery color, having a black band along the spine of his back, and on his flanks, patches as white as snow.' It is an animal adapted for running, and of such swiftness that the best horses cannot equal it. From this quality it is that it derives its Hebrew name; and, as it prefers the most craggy mountains, it runs with ease on the most difficult ground. All the ancient writers, who mention it, notice its fleetness, especially Xenophon, who says that it has long legs; is very rapid in running; swift as a whirlwind, having strong and stout hoofs.

Sir R. K. Porter's account of a wild ass, to which he gave chase, will help the reader to appreciate the fidelity with which the writer of the book of Job delineates its character.

'The sun was just rising over the summits of the Eastern mountains, when my greyhound, Cooley, suddenly darted off in pursuit of an animal which my Persians said, from the glimpse they had of it, was an antelope. I instantly put spurs to my horse, and, with my attendants, gave chase. After an unrelaxed gallop of full three miles, we came up with the dog, who was then within a short stretch of the creature he pursued; and to my surprise, and at first, vexation, I saw it to be an ass. But, on a moment's reflection, judging from its fleetness it must be a wild one, a species little known in Europe, but which the Persians prize above all other animals, as an object of chase, I determined to approach as near to it as the very swift Arab I was on would carry me. But the single instant of checking my horse to consider, had given our game such a head of us, that notwithstanding all our speed we could not recover our ground on him. I, however, happened to be considerably before my companions, when, at a certain distance, the animal in its turn made a pause, and allowed me to approach within a pistol-shot of him. He then darted off again with the quickness of thought; capering, kicking, and sporting in his flight, as if he were not blown in the least, and the chase were his pastime.



'He appeared to me to be about ten or twelve hands high; the skin smooth, like a deer's, and of a reddish color; the belly and hinder parts partaking of a silvery grey; his neck was finer than that of a common ass, being longer, and bending like a stag's, and his legs beautifully slender; the head and ears seemed large in proportion to the gracefulness of these forms, and by them I first recognised that the object of my chase was of the ass tribe. The mane was short and black, as was also a tuft which terminated his tail. No line whatever ran along his back, or crossed his shoulders, as are seen on the tame species with us. When my followers of the country came up, they regretted I had not shot the creature when he was so within my aim, telling me his flesh is one of the greatest delicacies in Persia: but it would not have been to eat him that I should have been glad to have had him in my possession. The prodigious swiftness and peculiar manner with which he fled across the plain, coincided exactly with the description that Xenophon gives of the same animal in Arabia. But, above all, it reminded me of the striking portrait drawn by the author of the book of Job.'

Let this account be compared with the description in Job:—chap. xxxix.

The fact, that the wild ass delights in the most barren and arid regions, shows the propriety of a passage in Isaiah, where the extreme desolation of the land of Israel to be occasioned by the troops of Nebuchadnezzar, is foretold: ch. xxxii. 13, 14.

Professor Gmelin states, that a female onager he possessed sometimes went two days without drinking, and that brackish water was better liked by her than fresh. A few blades of corn, a little withered grass, or the tops of a few scorched shrubs or plants, were sufficient to satisfy the cravings of its appetite, and render it contented and happy. Hence we may conceive the extreme state of wretchedness to which Judah was exposed, by the dearth which Jeremiah describes in the fourteenth chapter of his prophecies:—

The wild asses stood in the high places,  
They snuffed up the wind like dragons;  
Their eyes failed, because there was no grass.—Ver. 6.

The extreme propensity of the Jews to associate themselves in acts of idolatrous and obscene worship, with the heathen nations by which they were surrounded, has induced the prophet to refer to the violence of lust, and unrestrainable eagerness to satisfy the prompting of desire, in this animal: 'How canst thou say I am not polluted, I have not gone after Baalim? See thy way in the valley, know what thou hast done; thou art a swift dromedary, traversing her ways; a wild ass used to the wilderness, that snuffeth up the wind at her pleasure: in her occasion who can turn her away? All they that seek her will not weary themselves; after her season they will find her,' ch. ii. 23, 24. Every means used to restrain them from their idolatrous purposes proved unavailing: they

'snuffed up the wind at their pleasure,' and wearied the prophets of the Most High, till the armies of the Chaldeans subdued their spirit, and scattered them abroad for a season.

The ignorance and self-conceit of man is strongly asserted in Job xi. 12, by a reference to this animal: 'Vain man would be wise, though he be born a wild ass's colt;' or *ass-colt*; a proverbial expression, denoting extreme perversity and ferocity, and one repeatedly alluded to in the Old Testament. Thus, in Gen. xvi. 12, it is prophesied of Ishmael, that he should be a wild-ass man; rough, untaught, and libertine as a wild ass. So Hosea xiii. 15: 'He (Ephraim) hath *run wild* amidst the braying monsters.' So again, in ch. viii. 9, the very same character is given of Ephraim, who is called 'a solitary wild ass by himself,' or perhaps a solitary wild ass of the *desert*; for the original will bear to be so rendered. This proverbial expression has descended among the Arabians to the present day, who still employ, the expressions 'the ass of the desert,' or, 'the wild ass,' to describe an obstinate, indocile, and contumacious person. In Job xxiv. 5, robbers and plunderers are distinguished by the odious term of wild asses. The passage refers, evidently, says Mr. Good, 'not to the proud and haughty tyrants themselves, but to the oppressed and needy wretches, the Bedouins and other plundering tribes, whom their extortion and violence had driven from society, and compelled in a body to seek for subsistence by public robbery and pillage. In this sense the description is admirably forcible and characteristic.' So the son of Sirach says (Ecclus. xiii. 19): 'As the wild ass is the lion's prey in the wilderness, so the rich eat up the poor.'

## THE ROCK GOAT, OR IBEX.



THE best account which we have of this creature, is furnished by the late Mr. Charles Taylor, from whom we have selected the materials for the following article.

There are three places in scripture where an animal of the goat kind is mentioned, either directly, or by allusion, 1 Sam. xxiv. 2, 'Saul went to seek David and his men on the rocks of the *wild goats*;' literally, on the superficies, or *on the face of the rocks* of the IOLIM. Psalm civ. 18: 'The high mountains to the Ibices, (IOLIM) are a refuge; rocks are the refuge to the *Saphanim*.' But there is a third passage where it is more distinctly referred to, and its manners described at greater length:—in our translation, 'Knowest thou the time when the *wild goats of the rocks* bring forth? Canst thou mark when the *hinds* do calve? Canst thou number the months they fulfil? or knowest thou the time when they bring forth? They bow themselves; they bring forth their young ones; they cast out their sorrows. Their young ones are in good liking; they grow up with corn; they go forth, and return not to them,' Job xxxix. 1—4. A fourth passage presents this creature, the IOLEH, in a feminine form: 'Let thy wife be as the loving hind, and the pleasant *roe*,' Proverbs v. 19.

The specific character of the Bouquetin, or rock goat, is taken from the beard and horns, which are knobbed along the upper or anterior surface, and recline towards the back. The wild goat is larger than the tame goat, but resembles it much in the outer form. The head is small in proportion to the body, with the muzzle thick

and compressed, and a little arched. The eyes are large and round, and have much fire and brilliancy. The horns are large, when of a full size, weighing sometimes sixteen or eighteen pounds, flattened before and rounded behind, with one or two longitudinal ridges, and many transverse ridges, which degenerate towards the tip into knobs. The colour is dusky brown; the beard long, tawny, or dusky; the legs slender, with hoofs short, hollow on the inside, and on the outside terminated by a salient border, like those of the chamois. The body is short, thick and strong; the tail short, naked underneath, the rest covered with long hairs, white at the base and sides, black above and at the end. The coat is long, but not pendent, ash coloured, mixed with some hoary hairs. A black list runs along the back, and there is a black spot above and below the knees. Its color, however, like that of other animals, must necessarily vary according to its age, and to local circumstances.

The female is one-third less than the male, and not so corpulent: her color is less tawny; and her horns are not above eight inches long.

In a state of tranquillity, the rock goat commonly carries the head low; but in running it holds it high, and even bends it a little forward. It mounts a perpendicular rock of fifteen feet at three leaps, or rather three successive leaps, or three successive bounds of five feet each. It does not seem as if he found any footing on the rock, appearing to touch it merely to be repelled, like an elastic substance striking against a hard body. If he is between two rocks which are near each other, and wants to reach the top, he leaps from the side of one rock to the other alternately, till he has obtained the summit. He also traverses the glaciers with rapidity when he is pursued.

The Bouquetins feed, during the night, in the highest woods; but the sun no sooner begins to gild the summits, than they quit the woody region, and mount, feeding in their progress, till they have reached the most considerable heights. They betake themselves to the sides of the mountains which face the east or south, and lie down in the highest places and hottest exposures; but when the sun has finished more than three quarters of its course, they again begin to feed, and to descend towards the woods; whither they retire when it is likely to snow, and where they always pass the winter. The Bouquetins assemble in flocks, consisting at most of ten, twelve, or fifteen; but more usually in smaller numbers. The males which are six years old and upwards, haunt more elevated places than the females and the younger Bouquetins; and as they advance in age, they are less fond of society, and frequently live entirely alone. Having their fore legs somewhat shorter than the hind legs, they naturally ascend with greater facility than they descend; for this reason, nothing but the severest weather can engage them to come down into the lower regions; and even in winter, if there are a few fine days, they leave the woods and mount higher. These facts were not unobserved by the Psalmist, as we see from one of the passages above cited.

None but the inhabitants of the mountains engage in the chase of this animal ; for it requires, not only a head that can bear to look down from the greatest heights without terror ; address and sure footedness in the most difficult and dangerous passes ; and to be an excellent marksman ; but also much strength and vigor, to support hunger, cold, and prodigious fatigue. This shows the propriety with which the inspired writer calls the dreary and frightful precipices which frown over the Dead Sea, towards the wilderness of Engedi, 'The rocks of the wild goats ;' as if accessible only to those animals.

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### THE ANTELOPE.



This animal is not mentioned in our translation of the Bible ; but it is generally agreed, that the *Zebi*, which our translators take for the roe, is the gazelle, or antelope. The former animal is extremely rare in Palestine and the adjoining countries ; while the latter is common in every part of the Levant. Add to this, that the *Zebi* was allowed to the Hebrews, as an article of food, (Deut. xii. 5, &c.), and scarcely a doubt can remain on the subject.

The name of this animal, which is from a verb signifying *to assemble*, or *collect together*, is very characteristic of the gregarious character of the antelope, which live together in large troops, to the number sometimes of two or three thousand. The Septuagint, or Greek version of the Bible, uniformly translates the Hebrew word *beauty* ; and it is so translated, 2 Sam. i. 19 ; Isaiah iv. 2 ; Ezek. vii. 20, &c.

The gazelle forms a connecting species between the goat and the deer kinds; somewhat resembling the former internally, and the latter externally, excepting its horns, which are annulated or ringed round, with longitudinal depressions running from the bottom to the point. Of all animals in the world the gazelle is said to have the most beautiful eye.

From Dr. Russell we learn, that the inhabitants of Syria distinguish between the antelope of the mountain, and that of the plain. The former is the most beautifully formed, and it bounds with surprising agility; the latter is of a much lighter color, and is neither so strong nor so active. Both, however, are so fleet, that the greyhounds, though reckoned excellent cannot come up with them, without the aid of the falcon, except in soft deep ground. It is to the former species of this animal, apparently, that the sacred writers allude, since they distinctly notice their fleetness upon the mountains, 1 Chron. xii. 8; Cant. ii. 8, 9, 17; viii. 14.

The usual method of taking the antelope is by hunting it with the falcon, or the ounce; but it is sometimes taken by the following expedient. A tame antelope, bred up for the purpose, is taught to join those of its kind wherever it perceives them. When the hunter, therefore, discovers a herd of these together, he fixes a noose round the horns of the tame animal, in such a manner, that if the rest but touch it they are entangled; and thus prepared, he sends his antelope among the rest. The tame animal no sooner approaches, but the males of the herd instantly sally forth to oppose him; and in butting with their horns are caught in the noose. Finding itself taken in the snare, terror lends it additional strength and activity, and it makes the most vigorous exertions to disentangle itself, and escape before the hunter can come up with it. Its effort under these circumstances is proposed for imitation to the person who had rashly become surety for his neighbor: 'Deliver thyself as an antelope from the hand of the hunter, and as a bird from the hand of the fowler,' (Prov. vi. 5.); that is, 'Thou hast imprudently placed thyself in perilous circumstances, suffer no delay in making an effort for thy release.'

There seems to be something so highly figurative in the exclamation of the bride, (Cant. i. 7), 'Tell me, O thou, whom my soul loveth, where thou feedest,' &c. that it has never occurred to critics, that the speaker, assuming the metaphorical character of a *gazelle* or *antelope*, inquires for the resting place of the flock, wherein she also might rest. They have usually supposed that she makes this inquiry in the character of a shepherdess, meaning to accompany her shepherd, and to associate with him at the noon time of day, when he would be reposing.

## THE HART AND THE HIND.



THE hind and the roe, and the hart and the antelope, have always been held in the highest estimation by the orientals, for the voluptuous beauty of their eyes, the delicate elegance of their form, and their graceful agility of action. In the sacred writings, therefore, as well as in other literary compositions of the East, we frequently meet with direct references, or incidental allusions to their qualities and habits. The hart, which is the stag or male deer, is one of those innocent and peaceable animals that seem to embellish the forest, and animate the solitudes of nature. The easy elegance of his form, the lightness of his motions; those large branches that seem made rather for the ornament of his head than its defence; the size, the strength, and the swiftness of this beautiful creature; all sufficiently rank him among the first of quadrupeds, and among the most noted objects of human curiosity. But, as this animal is so well known, it is not necessary that we should occupy much of our space in minute verbal description. The horns of the deer,

however, are objects of too curious a description to be passed over in silence, especially as we shall have occasion to notice them somewhat particularly, in order to ascertain the import of an obscure passage of scripture. The size of the deer's antlers is in proportion to its age, and are shed every year: in full grown animals they are very large, and give an expansion and beauty to the head which is remarkably striking. Their growth and extension are affected by several external circumstances; and Buffon thinks it possible to retard their growth entirely, by greatly retrenching the animal's food. A stag bred in fertile pastures, and undisturbed by the hunter, has his head expanded, his antlers numerous, and his branches thick; while one often pursued and ill nourished, has but few antlers, and the expansion but little. The beauty and size of their horns, therefore, mark their strength and vigor.

The deer is a ruminating animal, and divides the hoof; it was therefore permitted to be eaten by the Mosaic law, Deut. xii. 15; xiv. 5. This was a great advantage to the Israelites, as the mountainous tracts of Lebanon, Gilead, and Carmel, abounded with deer, and supplied them with a rich provision of agreeable food.

Naturally of a hot and arid constitution, the deer suffers much from thirst in the oriental regions. He therefore seeks the fountain or the stream with intense desire, particularly when his natural thirst has been aggravated by the pursuit of the hunter. Panting and braying, with eagerness he precipitates himself into the river, that he may quench at once the burning fever which consumes his vitals, in its cooling waters. No circumstance can display more forcibly the ardent breathings of divine love in the soul of a true believer; and the holy Psalmist has availed himself of it, with admirable propriety and effect, in the description of his religious feelings, when exiled from the house of God, and a dejected wanderer near the sources of the Jordan: 'As the hart panteth after the water brooks, so panteth my soul after thee, O God. My soul thirsteth for God, for the living God: when shall I come and appear before God?' Thus importunate are the desires of the genuine saint; thus earnestly he longs after communion with his God; he feels impatient at a distance from the sanctuary, and finds it impossible to be satisfied with any enjoyment less than the sensible enjoyment of his Redeemer's favor.

The deer seems to resemble the goat, in being remarkably sure footed, and delighting in elevated situations. It possesses extraordinary swiftness, and will bound, with surprising agility, more than fifty feet. It is, therefore, with admirable propriety and force, that the spouse compares the sudden manifestations of her Saviour's love and power, to the bounding of the hart on the summits of the mountains: 'The voice of my beloved! behold, he cometh leaping upon the mountains, skipping upon the hills,' Cant. ii. 8. To give us some idea of the joy and triumph which the Messiah's appearance in human nature, his resurrection from the dead, and the establishment of his kingdom in all its glory, should produce in the



hearts of perishing sinners, the prophet Isaiah borrows the same figure:—'Then shall the lame man leap as a hart, and the tongue of the dumb shall sing,' chap. xxxv. 6.

The hind, or female stag, is a lovely creature, and of an elegant shape; though she is more feeble than the hart, and destitute of horns. It is not known, we believe, that the hind is more sure footed than the hart, although the figure employed by both David and Habakkuk, seems to indicate as much. The royal Psalmist, alluding to the security of his position, under the protection of his God, says, 'He maketh my feet like hind's feet, and setteth me upon my high places,' (Psalm xviii. 33); and the prophet, reposing in the same power, anticipates a full deliverance from his existing troubles, and a complete escape from surrounding dangers: 'He will make my feet like hind's feet, and he will make me to walk upon mine high places,' Hab. iii. 19. This passage has given rise to considerable discussion among the learned.

In Prov. v. 18, 19, Solomon admonishes the young man to let the wife of his bosom be to him 'as the loving hind and pleasant roe;' a beautiful allusion to the mutual fondness of the stag and hind. The only remaining passage of scripture in which this animal is mentioned, requiring illustration, is the prophetic blessing pronounced on Naphtali by the dying patriarch—a passage which is involved in considerable difficulty and obscurity. In our translation it stands thus: 'Naphtali is a hind let loose, he giveth goodly words,' (Gen. xlix. 21);—a rendering which exhibits a singular confusion of ideas. The subject of the prophecy is represented as being both masculine and feminine: a hind is said to *speak words*—*goodly words*—a phraseology in which there is no unity of allusion, to say nothing of its want of correspondence with the subsequent history of the tribe, but which correspondence is found in a nice degree, in every other paragraph of this beautiful composition.

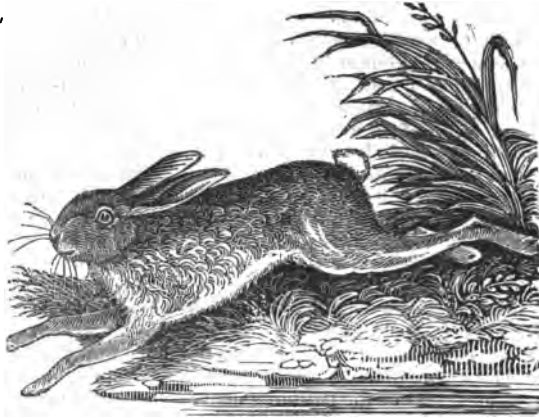
The late editor of Calmet undertook a very careful analysis of this passage, and gives, as its result, the following version: 'Naphtali is a deer roaming at liberty, he shooteth forth noble branches (*majestic antlers*.)' The English word *branches*, is applied to the stag, with exactly the same allusion as the Hebrew word: the French say *bois* (wood), for a stag's horns. The horns of a *stag* are annually shed, and re-produced; and as we have already said, they are ample if his pasturage has been plentiful and nutritious; or stunted in their growth, if his food has been sparing, or deficient in nourishment. Buffon reasons at length on this subject.—'There is so intimate a relation,' he says, 'between nutrition and the production of the antlers, &c. that we have formerly established its *entire dependence on a superabundance of nourishment*. After the first year, in the month of May, the horns begin to shoot, and form two projections, which lengthen and harden, *in proportion as the animal takes nourishment*. This effect (of nourishment) appears, especially on the summit of the head, where it manifests itself more than every where else, by the production of the horns . . . Another proof that

the production of the horns arises wholly from the superabundance of nourishment, is the difference which is found between the horns of stags of the same age, of which some are very thick and spreading, while others are thin and slender, which depends absolutely on the quantity of nourishment: for, a stag which inhabits a plentiful country, where he feeds at his will; where he is not molested by dogs or by men; where, having eaten quietly, he may afterwards ruminate at his ease, will always show a head beautiful, high, and spreading: palms large and well-furnished: the stem of his horns thick, well-pearled, with numerous antlers, long and strong: whereas, he who inhabits a country where he has neither quiet nor nourishment sufficient, will show but an impoverished head, few antlers, and feeble stems; INASMUCH, THAT IT IS ALWAYS EASY TO DETERMINE, BY EXAMINING THE HEAD OF A STAG, WHETHER HE INHABITS A PLENTIFUL AND QUIET COUNTRY, AND WHETHER HE HAS BEEN WELL OR ILL FED.'

The prediction of Jacob, then, may be thus understood: 'Naphtali shall inhabit a country so rich, so fertile, so quiet, so unmolested, that, after having fed to the full, on the most nutritious pasture, he shall shoot out branches, i. e. antlers, &c., of the most majestic magnitude.' Thus the patriarch denotes the happy lot of Naphtali; not directly, but indirectly; not by the energy of immediate description, but by inevitable inference, arising from the observation of its effects. In fact, the lot of this tribe was rich in pasture, and 'his soil,' as Calmet observes, 'was very fruitful in corn and oil.' So that we have correct verbal propriety, and the subsequent fulfilment of the prophecy, in favor of this interpretation.

The residence of Naphtali was a beautiful woodland country, extending to Mount Lebanon, and producing fruits of every sort.—Moses says (Deut. xxxiii. 23) Naphtali shall enjoy abundance of favor and be filled with the blessings of the Lord. Josephus speaks highly of the fertility of Galilee, which comprised the lot of the tribe, and reckons two hundred and fourteen towns in the province. It needs little proof that such a country was likely to yield abundance of nourishment for deer, which might display its prolific effects in the growth and magnitude of the horns, and their branches: so that this country might *literally* fulfil the patriarch's blessing, which is not always to be expected in *figurative* language.

## THE HARE AND THE CONEY.



IN Lev. xi. the Jewish legislator places the hare among unclean animals, because, 'although he chews the cud, he divides not the hoof.'

Like all other animals that feed entirely upon vegetables, the hare is inoffensive and timorous. As nature furnishes it with an abundant supply, it has not that rapacity after food remarkable in such as are often stinted in their provisions. It is extremely active, and amazingly swift, to which it chiefly owes its protection; for, being the prey of every voracious animal, it is incessantly pursued. The eyes of the hare are large and prominent, and placed so far backward in its head, that it can almost see behind it as it runs. They are never wholly closed; but, as the animal is continually upon the watch, it sleeps with them open. The ears are still more remarkable for their size; they are moveable, and can be directed to every quarter; so that the smallest sounds are readily received, and the animal's motions directed accordingly. The muscles of the body are very strong, and without fat, so that it may be said to carry no superfluous burthen of flesh about it. The hinder feet are larger than the fore, which still adds to the rapidity of its motions; and almost all animals that are remarkable for their speed, except the horse, are formed in the same manner. The hare multiplies exceedingly; and, were it not for the depredations made upon the race by most other animals, it would quickly overrun the earth.

The flesh of this animal has been esteemed a delicacy by some nations, but is held in detestation by others. The Jews, the ancient Britons, and the Mahometans, all considered it as unclean, and re-

ligiously abstained from it. On the contrary, there are scarcely any other people, however barbarous, who do not consider it as the most agreeable food.

The English translators, in common with several others, have taken an animal mentioned in Leviticus xi. 6, and other parts of the Bible, to be the coney or rabbit. But, to say nothing against the improbability of this animal being common to Arabia or Judea, there is another formidable objection to this interpretation; namely, the want of conformity between the habits of the rabbit and those attributed to the *saphan* (Eng. Tr. Coney) by the sacred writers. 'The high hills,' says David, 'are a refuge for the wild goats, and the rocks for the saphans' (Eng. Tr. Conies), Psa. civ. 18. Solomon notices the same fact, in Prov. xxx. 26: 'The saphans (Eng. Tr. Conies) are but a feeble folk, yet make they their houses in the rocks.' Now, it is well known, that the rabbit, instead of fixing its residence in the flinty rock, uniformly takes up its dwelling in the sandy ground, and invariably frequents the plain.

Bochart, admitting these difficulties, takes the *saphan* to be the jerboa, or leaping mouse; but Bruce has shown that the only animal which answers to its description, is the *ashkoko*; or as it is called in Arabia and Syria, *Ganani-Israel*, or 'Israel's sheep.' The following is Dr. Shaw's description of this curious animal

'It is a harmless creature, of the same size and quality with the rabbit, and with the like incurvating posture and disposition of the fore teeth. But it is of a browner color, with smaller eyes, and a head more pointed, like the marmot's. The fore-feet are short, and the hinder are nearly as long in proportion as those of the jerboa. Though this animal is known to burrow sometimes in the ground, yet as its usual residence and refuge is in the holes and clefts of the rocks, we have so far a more presumptive proof, that this creature may be the *saphan* of the scriptures than the jerboa.' The Dr. could not learn why this animal was called 'Israel's lamb.'

Mr. Bruce's description is very full: we select the following particulars. 'The *ashkoko* are gregarious, and frequently several dozens of them sit upon the great stones at the mouths of caves, and warm themselves in the sun, or even come out and enjoy the freshness of the summer evening. They have something very mild, feeble-like, and timid in their deportment; are gentle, and easily tamed; though, when roughly handled at the first, they bite very severely. All over his body he has scattered hairs, strong and polished like his mustachops; for the most part two inches and a quarter in length. His ears are round, not pointed; he makes no noise, but certainly chews the cud.' After combating the notion that the *saphan* is the coney or rabbit, Mr. Bruce proceeds to apply the character which the sacred writers give of this animal to the *ashkoko*. He is above all other animals so much attached to the rock, that this celebrated traveller never once saw him on the ground, or from among large stones in the mouths of caves, where is his con-

stant residence. He is in Judea, Palestine, and Arabia, and consequently must have been familiar to Solomon. David describes him very pertinently, and joins him with other animals perfectly known to all men: 'The hills are a refuge for the wild goats, and the rocks for the saphan,' or ashkoko, Ps. civ. 18. And Solomon says, 'There be four things which are little upon earth, but they are exceeding wise. The saphaniam are a feeble folk, yet they make their houses in rocks,' Prov. xxx. 24—26. This, Bruce argues, very obviously fixes the ashkoko to be the saphan; for this weakness seems to allude to his feet, and how inadequate these are to dig holes in the rock, where yet, however, he lodges. They are, as already observed, perfectly round, very pulpy or fleshy, liable to be excoriated or hurt, and of a soft fleshy substance. Notwithstanding this, however, they build houses in the very hardest rocks, more inaccessible than those of the rabbit, and in which they abide in greater safety; not by exertion of strength, for they have it not, being truly as Solomon says, a *feeble* folk, but by their own sagacity and judgment, and are, therefore, justly described as wise. Lastly, what leaves the thing without doubt is, that some of the Arabs, particularly Damir, say, that the saphan has no tail; that it is less than a cat, and lives in houses; that is, not houses with men, as there are few of these in the country where the saphan is; but that he builds houses, or nests of straw, as Solomon has said of him, in contradistinction to the rabbit, and rat, and those other animals that burrow in the ground, who cannot be said to build houses, as is expressly said of the saphan.

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### THE MOUSE.



THIS animal was declared by the Jewish legislator to be unclean (Lev. xi. 29), which indicates that it was occasionally adopted as an article of food. It was, indeed, one of the abominations charged upon the people in the time of Isaiah, for which they were threatened with signal punishment, Isaiah lxvi. 17.

But the Hebrew *acbar*, which our version renders *mouse*, is thought to describe the *jerboa*, an animal which is classed by the

Arabs under the *El Akbar*, or largest of the *mus montanus*. It is found all over Africa, Syria, and other Eastern countries. It is only about five inches long, stands upon its hind legs, and rests itself by sometimes sitting backwards, but seldom supports itself upon all its four legs at once. When it thus stands upright, it has the appearance of a compound animal—a rat with the legs of a bird, in the flying posture. Its fore feet are so extremely short, that they are only used like the ape's and the squirrel's, as hands to convey its food to its mouth, and like the rabbit, to dig a subterraneous habitation; but the hind legs are long, and so very nimble, that it hops like a bird, and with so much activity, that it can scarcely be run down by a greyhound.

The head and mouth of the jerboa resemble those of the hare, but are different from that animal, by having only two incisors. The body is short, and having a tail nearly about the same length, has caused it to receive the appellation of a rat. Its back and sides being of an ashy color, with blueish stripes, may be called a sorrel color. It is eaten in Egypt, and is esteemed very palatable; its skin is used as a common, though a beautiful kind of fur.

The reader is doubtless familiar with the account of the great devastation occasioned in the land of Philistia by this little animal, (1 Sam. vi.), after its inhabitants had taken the ark of the Divine presence, and placed it in the vicinity of the idolatrous symbols of worship. Nor is this the only instance on record in which it has made considerable ravages in that neighborhood.

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## THE MOLE.



THIS curious little quadruped seems formed to live wholly under the earth, as if the supreme Being meant that no place should be left wholly untenanted. Were we, from our own sensations to pronounce upon the life of an animal that was never to appear above ground, but be always condemned to hunt for its prey under-death, and obliged, whenever it removed from one place to another, to bore its way through a resisting body, we should be apt to assert that such an existence must be the most frightful and solitary in

nature. In the mole, however, though condemned to all these seeming inconveniences, we discover no signs of wretchedness or distress. No quadruped is fatter, none has a more sleek or glossy skin; and, though denied many advantages that most animals enjoy, it is more liberally possessed of others, which they have in a more scanty proportion.

The size of the mole is between that of the rat and the mouse; but it in no way resembles either, being an animal entirely of a singular kind, and perfectly unlike any other quadruped whatever. Its nose is long and pointed, resembling that of a hog, but much longer. Its eyes are so small that it is scarcely possible to discern them; and instead of ears it has only holes in the place. Its neck is so short that the head seems stuck upon the shoulders. The body is thick and round, terminating by a very small short tail, and its legs also are so short, that the animal seems to lie flat on its belly. Thus it appears to us, at first view, as a mass of flesh covered with a fine shining black skin, with a little head, and scarce any eyes, legs, or tail. The ancients and some of the moderns were of opinion, that the mole was utterly blind; but Derham, by the help of a microscope, plainly discovered all parts of the eye that are known in other animals. The smallness of its eyes, which induced the ancients to think it blind, is to the animal a peculiar advantage. A small degree of vision is sufficient for a creature that is destined to live in darkness: a more extensive sight would only have served to show the horrors of its prison, while nature had denied it the means of escape. Had this organ been larger, it would have been perpetually liable to injuries, by the falling of the earth into it; but nature, to prevent that inconvenience, has not only made them very small, but has also covered them with hair. Besides these advantages, anatomists mention another, that contributes to its security; namely, a certain muscle, by which the animal can draw back the eye whenever it is necessary, or in danger. Indeed, the whole figure and formation of the mole is most admirably adapted to its manner of living, and strikingly illustrates the wisdom and skill of the Almighty Creator.

## THE BAT.



THIS singular creature, which possesses properties that connect it with both beasts and birds, has been variously placed in systems of natural history. The editor of Calmet, says, 'it is too much a bird to be properly a beast, and too much a beast to be properly a bird.' Doubts as to its nature, however, no longer exist. The bat is now universally made to take its place among the animal tribes, to which the bringing forth its young alive, its hair, its teeth, as well as the rest of its habitudes and conformation, evidently entitles it. In no particular, scarcely, does it resemble a bird, except in its power of sustaining itself in the air, which circumstance is scarcely enough to balance the weight of those particulars which we have noticed, as placing it among quadrupeds.

The Hebrew name of the bat denotes 'the flier in duskiuess,' i. e. the evening. It was similarly named by the Greeks and the Latins. In Deut. xiv. 18, 19, it is well described; 'Moreover the bat, and every *creeping thing that flieth*, is unclean to you: they shall not be eaten.'

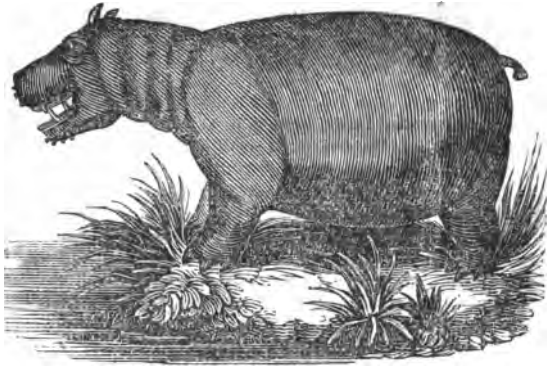
The legs of the bat are formed in a very particular manner, and entirely different from any other animal. It creeps with the instruments of its flight. During the entire winter, it conceals itself in its hole, as it does, also, during the day time even in summer, never venturing out, except for an hour or two in the evening, in order to supply itself with food. The usual place in which it takes up its abode is the hollow of a tree, a dark cavern, or the chink of some ruined building, of which it seems particularly fond. This illustrates Isaiah, ii. 20: 'In that day, a man shall cast his idols of silver and his idols of gold to the moles and to the bats:' that is, he shall carry his idols into the dark caverns, old ruins, or desolate places, to which he himself shall flee for refuge; and so shall give them up, and relinquish them to the filthy animals that frequent such places, and have taken possession of them as their proper habitation.



SECTION IV.  
DUBIOUS ANIMALS.

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THE BEHEMOTH



THE animal denoted by this appellation in the book of Job, has been variously determined by learned men ; some of whom, especially the early Christian writers and the Jewish rabbins, have indulged in sufficiently extravagant notions. To detail these would be useless, and we shall therefore pass them over in silence.

The late editor of Calmet, whose extensive learning and indefatigable industry will always entitle him to respectful attention, notwithstanding his love of fanciful conjecture, has well remarked, that 'the author of the book of Job has evidently taken great pains in delineating highly finished and poetical pictures of two remarkable animals, BEHEMOTH and LEVIATHAN: these he reserves to close his descriptions of animated nature, and with these he terminates the climax of that discourse, which he puts into the mouth of the ALMIGHTY. He even interrupts that discourse, and separates, as it were, by that interruption, these surprising creatures from those which he had described before ; and he descants on them in a manner which demonstrates the poetic animation with which he wrote. The leviathan is described at a still greater length than the behe-

moth; and the two evidently appear to be presented as companions; to be reserved as fellows and associates.' Mr. Taylor then proceeds to enquire what were the creatures most likely to be companionized and associated in early ages, and in countries bordering on Egypt, where the scene of this poem is placed; and from the 'Antiquities of Herculaneum,' the 'Prænestine Pavement,' and the famous 'Statue of the Nile,' he shows these to have been the CROCODILE—now generally admitted to be the leviathan, and the HIPPOPOTAMUS, or river-horse.

'After these authorities,' he remarks, 'I think we may without hesitation, conclude, that this association was not rare or uncommon, but that it really was the *customary* manner of thinking, and consequently, of speaking, in ancient times, and in the countries where these creatures were native; we may add, that being well known in Egypt, and being, in some degree, *popular* objects of Egyptain pride, *distinguishing* natives of that country, for their magnitude and character, they could not escape the notice of any curious naturalist, or writer on natural history; so, that to suppose they were omitted in this part of the book of Job, would be to suppose a blemish in the book, implying a deficiency in the author: and if they are inserted, no other description can be that of the hippopotamus.'

Aristotle represents the hippopotamus to be of the size of an ass; Herodotus affirms that in stature he is equal to the largest ox; Diodorus makes his height not less than five cubits, or above seven feet and a half; and Tatius calls him, on account of his prodigious strength, the Egyptain elephant. Captain Beaver thus describes one which he met with in Western Africa: 'The animal was not swimming, but standing in the channel, in, I suppose, about five feet water: the body immersed, and the head just above it. It looked steadfastly at the boat till we were within about twenty yards of it, when I lodged a ball half way between its eyes and nostrils: it immediately tumbled down, but instantly rose again, snorted, and walked into shallower water, where I had an opportunity of seeing its whole body, and then discovered that it was an hippopotamus. It afterwards advanced a little towards the boat, then towards the shore, and turned entirely round, once or twice, as if at a loss what to do, plunging violently the whole time. At last it walked into deeper water, and then dived: we watched its rising, and then pursued it; and this we did for near three hours, when, at length it landed on a narrow neck of sand, and walked over it into fifteen or sixteen fathoms of water. We then gave up the pursuit, having never been able to get a second shot at it. The longest time it was under water during the pursuit, was twenty minutes, but immediately after being wounded it rose every three or four minutes. Its body appeared to be somewhat larger than that of the largest buffalo, with shorter but much thicker legs; a head much resembling a horse's, but longer; large projecting eyes; open and wide distended nostrils; short erect ears, like a cropt horse when it pricks them

up, or those of a well-cropped terrier. I perceived nothing like a mane, and the skin appeared to be without hair; but of this I am not certain, for being totally ignorant whether the animal was ferocious or not, immediately after I fired, we rowed from it, expecting it would attack us.'

In Job xl. 17, 18, the sacred writer conveys a striking idea of the bulk, vigor, and strength of the behemoth.

He moveth his tail like a cedar :  
The sinews of his thighs are interwoven together.  
His ribs are as strong pieces of copper ;  
His backbone like bars of iron.

The idea of his prodigious might is increased by the account given of his bones, which are compared to strong pieces of brass, and bars of iron. Such figures are commonly employed by the sacred writers, to express great hardness and strength, of which a striking example occurs in the prophecy of Micah : 'Arise and thresh, O daughter of Zion ; for I will make thy horn iron, and I will make thy hoofs brass : and thou shalt beat in pieces many people, Micah iv. 13—so hard and strong are the bones of the behemoth.

He is chief of the works of God.  
He that made him has fixed his weapon.

Here he is described as one of the noblest animals which the Almighty Creator has produced. The male hippopotamus which Zernighi brought from the Nile to Italy, was sixteen feet nine inches long, from the extremity of the muzzle to the origin of the tail ; fifteen feet in circumference ; and six feet and a half high ; and the legs were about two feet ten inches long. The head was three feet and a half in length, and eight feet and a half in circumference. The opening of the mouth was two feet four inches, and the largest teeth were more than a foot long.

Thus, his prodigious strength ; his impenetrable skin ; and vast opening of his mouth, and his portentous voracity ; the whiteness and hardness of his teeth ; his manner of life, spent with equal ease in the sea, on the land, or at the bottom of the Nile,—equally claim our admiration, and entitle him, says Paxton, to be considered as the chief of the ways of God. Nor is he less remarkable for his sagacity ; of which two instances are recorded by Pliny and Solinus. After he has gorged himself with corn, and begins to return with a distended belly to the deep, with averted steps he traces a great many paths, lest his pursuers, following the lines of one plain track, should overtake and destroy him while he is unable to resist. The second instance is not less remarkable : when he has become fat with too much indulgence, he reduces his obesity by copious bleedings. For this purpose, he searches for newly cut reeds, or sharp pointed rocks, and rubs himself against them till he makes a sufficient aperture for the blood to flow. To promote the discharge, it is said, he agitates his body ; and when he thinks he has lost a

sufficient quantity, he closes the wound by rolling himself in the mud.

In compliance with the prevailing opinion, which refers this description to the hippopotamus, we have thought it right to exhibit some of the points of resemblance which have been discovered between that creature and the behemoth of the book of Job. We much doubt, however, the identity of the animals, and are more inclined to think, with Drs. Good and Clarke, that the sacred writer refers to an animal of an extinct genus. Dr. Clarke believes it to have been the *mastodonton* or *mammoth*, some part of a skeleton of which he has carefully examined, and thus described in his commentary on Gen. i. 24. 'The *mammoth* for size will answer the description in verse 19: 'He is the chief of the ways of God.' That to which the part of a skeleton belonged, which I examined, must have been, by computation, not less than *twenty-five* feet high, and *sixty* feet in length! The bones of *one toe* I measured, and found them *three feet* in length! One of the very smallest grinders of an animal of this extinct species, full of processes on the surface, more than an inch in depth, which showed that the animal had lived on *flesh*, I have just now weighed, and found it, in its very dry state, *four pounds eight ounces*, avoirdupoise: the same grinder of an *elephant* I have weighed also, and find it just *two pounds*. The *mammoth*, therefore, from this proportion must have been as large as *two elephants* and *a quarter*. We may judge by this of its size; *elephants* are frequently *ten* and *eleven* feet high: this will make the *mammoth* at least *twenty-five* or *twenty-six* feet high; and as it appears to have been a *many-toed* animal, the *springs* which such a creature could make, must have been almost incredible: nothing by *swiftness* could have escaped its pursuit. God seems to have made it as the proof of his power; and had it been prolific, and not become extinct, it would have depopulated the earth. Creatures of this kind must have been living in the days of Job: the behemoth is referred to here, as if perfectly commonly known.'

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## THE LEVIATHAN.

THE word Leviathan occurs only in four passages of scripture, in addition to that very sublime description which is furnished of the creature to which the appellation is given, in the forty-first chapter of the book of Job—a description in the highest degree poetical, and, in the minutest particular, just. There can be little doubt that the same creature is elsewhere called *Tan* and *Tannin*, which words are variously rendered *whale*, *dragon*, *serpent*, and *sea-monster*; a diversity of translation sanctioned by the original penmen,

who use the words to describe these, and perhaps several other large animals in addition to them, among which is the crocodile, who is more particularly marked out, by the term *LEVIATHAN*.

'The main proof that the leviathan is the crocodile of the Nile,' says Mr. Vansittart, 'arises chiefly from some particular circumstances and contingencies attending the crocodiles of Egypt, and of no other country; and if these circumstances are such, that we can suppose the Hebrew writer drew his ideas from them in his description of leviathan, they will afford an almost certainty that leviathan represents the crocodile of the Nile.' The writer then quotes a passage from Herodotus, where the historian describes this animal, and relates the peculiarities attendant upon him in parts of Egypt; remarking, that 'some of the Egyptians hold the crocodile sacred, particularly the inhabitants of Thebes, and others bordering upon the lake Moeris, who breed up a single crocodile, adorn him with rings and bracelets, feed him with the sacred food appointed for him, and treat him with the most honorable distinction.' With much ingenuity, he then proceeds to illustrate the description in the book of Job, and to consider it as strongly indicating the peculiarities of the Thebaid crocodile.

The description of leviathan commences at the twelfth verse, and is divided into three parts, classed under the different heads of, (1.) *his parts*; (2.) *his great might*; (3.) *his well-armed make*. Of these, the first and the third describe him as truly as a naturalist would do. The second part magnifies him as a god.

It is difficult, perhaps impossible, to find a description so admirably sustained in any language of any age or country. The whole appears to be of a piece, and equally excellent.

To stir up or awake leviathan is represented, in chap. xli. 8-10 of the same book, to be inevitable destruction. It was natural to mention such a terrible casualty in the strongest terms of abhorrence, and to lament those who so miserably perished with the most bitter imprecations on the disastrous day. Job calls for the assistance of such language, to execrate the fatal night of his nativity.

By the term leviathan, in Psalm lxxiv. 14, we may suppose Pharaoh to be represented, as a king of Egypt is called by Ezekiel (chap. xxix. 3) 'the great dragon [or crocodile] that lieth in the midst of his rivers.'

## THE UNICORN.

It would be of little advantage to the reader, were we to detail the various opinions entertained relative to the identity of the animal designated the *UNICORN*, in our translation of the Bible. The *oryx*, a species of the wild goat; the *urus*, a species of the wild bull;

a species of the antelope, or deer; and the single, and double horned rhinoceros, have each had their able advocates, as being the REEM of sacred writ.

From the circumstance of our having associated this creature with 'dubious animals,' it will of course be inferred, that some difficulty exists in identifying it with any known animal. Such is the fact; for while there are points of resemblance between the REEM, as described in scripture, and each of the animals above mentioned, there are considerations that seem to render it doubtful whether any one of them is precisely the same animal as that described by the sacred penmen.

It is hardly necessary to remark, that the unicorn, as represented by poets and painters, has never been found in nature, and never, perhaps, had an existence but in the imagination of the one, and on the canvass of the other. But before we proceed to inquire what creature is denoted by the Hebrew *reem*, it will be well to ascertain its precise character, by a careful examination of those passages in which it is mentioned. The first allusion to it, is in the reply of Balaam to Balak, when importuned by the terrified king to curse the invading armies of Israel: 'God brought them out of Egypt; he hath as it were the strength of an unicorn,' Numb. xxiii. 22; xxiv. 8. From this it is evident, that the REEM was conceived to possess very considerable power. With this idea corresponds the passage in Isaiah, where the prophet associates him with other powerful animals, to symbolize the leaders and princes of the hostile nation that were destined to desolate his country: 'And the unicorns shall come down with them, and the bullocks with the bulls; and their land shall be soaked with blood, and their dust made fat with fatness,' ch. xxxiv. 7. From the book of Job we learn, that it was not only an animal of considerable strength, but also an animal of a very fierce and intractable disposition: 'Will the unicorn be willing to serve thee, or abide by thy crib? Canst thou bind the unicorn with his band in the furrow? or will he harrow the valleys after thee? Wilt thou trust him, because his strength is great? or wilt thou leave thy labor to him? Wilt thou believe him, that he will bring home thy seed, and gather it into thy barn?' ch. xxxix. 9—12. Another particular we collect from Psalm xcii. 10; namely, that the animal possesses a single horn, and that in an erect posture, unlike other horned animals: 'My horn shalt thou exalt like the horn of an unicorn;' while it is evident from the following passage, that it was sometimes found with more horns than one. 'His [Joseph's] horns are like the horns of an unicorn,' Deut. xxxiii. 17. These are all the passages, except two, in which the Reem is mentioned in scripture: these are Psalms xxii. 21, and xxix. 6. From the former of these passages, we are unable to gather any additional information, and the latter will add but little to our former stock: 'He maketh them also to skip like a calf; Lebanon and Sirion like a young unicorn.'

We are now better prepared to examine into the validity of the

claims that have been advanced in favor of those animals which are supposed to be the *reem* of the Hebrew Scriptures. Let us first hear Mr. Bruce.

'It is very remarkable,' says this distinguished traveller, 'that two such animals as the elephant and the rhinoceros should have wholly escaped the description of the sacred writers. Moses and the children of Israel were long in the neighborhood of the countries which produced them both, while in Egypt and in Arabia. The classing of the animals into clean and unclean seems to have led the legislator into a kind of necessity of describing, in one of the classes, an animal which made the food of the principal pagan nations in the neighborhood. Considering the long and intimate connexion Solomon had with the south coast of the Red Sea, it is next to impossible that he was not acquainted with them, as both David his father, and he himself, made plentiful use of ivory, as they frequently mention in their writings, which, along with gold, came from the same parts. Solomon, besides, wrote expressly on Zoology, and we can scarce suppose he was ignorant of two of the principal articles of that part of the creation, inhabitants of the great continent of Asia east from him, and that of Africa on the south, with both which territories he was in constant correspondence.

'There are two animals named frequently in scripture without naturalists being agreed what they are. The one is the *behemoth*, the other the *reem*; both mentioned as types of strength, courage, and independence on man; and, as such, exempted from the ordinary lot of beasts, to be subdued by him, or reduced under his dominion. Though this is not to be taken in a literal sense,—for there is no animal without the fear or beyond the reach of the power of man,—we are to understand it of animals possessed of strength and size so superlative, as that in these qualities other beasts bear no proportion to them.'

The *behemoth* Mr. Bruce takes to be the *elephant*, in which we differ from him; and the *reem* he argues to be the *rhinoceros*, from the following considerations.

The derivation of the word, both in Hebrew and Ethiopic, seems to be from *erectness* or *standing straight*. This is certainly no particular quality in the animal itself, who is not more, or even so much erect as many other quadrupeds, for its knees are rather crooked; but it is from the circumstance and manner in which his horn is placed. The horns of all other animals are inclined to some degree of parallelism with the nose, or *as frontis*. The horn of the rhinoceros alone is erect or perpendicular to this bone, on which it stands at right angles; thereby possessing a greater purchase or power, as a lever, than any horn could possibly have in any other position.

This situation of the horn is very happily alluded to in the sacred writings: 'My horn shalt thou exalt like the horn of a reem,' Psalm xcii. 10. And the horn here alluded to is not wholly figurative, but was really an ornament worn by great men in the days of victory,

preferment, or rejoicing, when they were anointed with new, sweet, or fresh oil: a circumstance which David joins with that of erecting the horn.

It is difficult to imagine why some writers have been induced to consider the unicorn as being of the deer or antelope kind, since this is of a genus, whose very character is fear and weakness, quite opposite, as Mr. Bruce remarks, to the qualities by which the *reem* is described in scripture. Besides it is plain that the *reem* is not of the class of clean quadrupeds; and a late modern traveller very whimsically takes him for the leviathan, which certainly was a fish. Balaam, a priest of Midian, and so in the neighborhood of the haunts of the rhinoceros, and intimately connected with Ethiopia (for they themselves were shepherds of that country), in a transport, from contemplating the strength of Israel whom he was brought to curse, says, they had as it were 'the strength of the reem,' Numbers xxiii. 22. Job makes frequent allusions to his great strength, ferocity, and indocility, ch. xxxix. 9, 10. He asks, 'Will the reem be willing to serve thee, or to abide at thy crib?' That is, will he willingly come into thy stable, and eat at thy manger? and again: 'Canst thou bind the reem with a band in the furrow, and will he harrow the valleys after thee?' In other words, canst thou make him to go in the plough or harrow?

Isaiah (ch. xxxiv. 7), who of all the prophets, seems to have known Egypt and Ethiopia the best, when prophesying about the destruction of Idumea, says, that 'the reem shall come down with the fat cattle,' a proof that he knew his habitation was in the neighborhood. In the same manner as when foretelling the desolation of Egypt, he mentions as one manner of effecting it, the bringing down the fly from Ethiopia, to meet the cattle in the desert and among the bushes, and destroy them there, where that insect did not ordinarily come but on commands (comp. Isaiah vii. 18, 19; and Exodus viii. 22), and where the cattle feed every year, to save themselves from that insect.

The principal reason for translating the word *reem*, unicorn, and not rhinoceros, is from a prejudice that he must have but one horn. But this is by no means so well founded, as to be admitted an argument for establishing the existence of an animal which never has appeared after the search of so many ages. Scripture, as we have seen, speaks of the *horns* of the unicorn; so that, even from this circumstance, the *reem* may be the rhinoceros, as the Asiatic; and part of the African rhinoceros may be the unicorn.

In addition to these particulars, Mr. Bruce informs us, that the rhinoceros does not eat hay or grass, but lives entirely upon trees; he does not spare the most thorny ones, but rather seems to be fond of them; and it is not a small branch that can escape his hunger; for he has the strongest jaws of any creature known, and best adapted to grinding or bruising any thing that makes resistance. But, besides, the trees capable of most resistance, there are in the vast forests which he inhabits, trees of a softer consistence, and of a



very succulent quality, which seem to be destined for his principal food. For the purpose of gaining the highest branches of these, his upper lip is capable of being lengthened out, so as to increase his power of laying hold with this, in the same manner as the elephant does with his trunk. With this lip, and the assistance of his tongue, he pulls down the upper branches, which have most leaves, and these he devours first; having stript the tree of its branches, he does not therefore abandon it, but placing his snout as low in the trunk as he finds his horn will enter, he rips up the body of the tree, and reduces it to thin pieces, like so many laths; and when he has thus prepared it, he embraces as much of it as he can in his monstrous jaws, and twists it with as much ease as an ox would do a root of celery.

Such is the description which this intelligent writer gives of the animal he supposes to be the *reem* of the sacred writers; and the objections urged against his opinion possess very little weight. Those who desire to see them examined and refuted, may find it done in the Natural History of the Fragments to Calmet.

Next to the elephant, the rhinoceros is said to be the most powerful of animals. It is usually found twelve feet long, from the tip of the nose to the insertion of the tail; from six to seven feet high; and the circumference of its body is nearly equal to its length. It is, therefore, equal to the elephant in bulk; and the reason of its appearing so much smaller to the eye than that animal, is, that its legs are much shorter. Words, says Goldsmith, can convey but a very confused idea of this animal's shape; and yet there are few so remarkably formed. But for its horn, which we have already described, its head would have the appearance of that part of a hog. The skin of the rhinoceros is naked, rough, knotty, and lying upon the body in folds, in a very peculiar manner; the skin, which is of a dirty brown color, is so thick as to turn the edge of a scimitar, and to resist a musket-ball.

Such is the general description of an animal that appears chiefly formidable from the horn growing from its snout; and formed, rather for war, than with a propensity to engage. The elephant, the boar, and the buffalo, are obliged to strike transversely with their weapon; but the rhinoceros, from the situation of his horn, employs all his force with every blow; so that the tiger will more willingly attack any other animal of the forest than one whose strength is so justly employed. Indeed, there is no force which this terrible animal has to apprehend: defended on every side by a thick horny hide, which the claws of the lion or the tiger are unable to pierce, and armed before with a weapon that the elephant does not choose to oppose. Travellers have assured us, that the elephant is often found dead in the forests, pierced with the horn of a rhinoceros.





## CHAPTER III.

### BIRDS.

WE now advance to one of the most beautiful and numerous parts of animated nature. A few introductory observations may be permitted, before we proceed to describe the several individuals that are presented to our notice, in reviewing the ornithology of the Bible.

The first thing which claims our attention, is the structure of the feathered tribes. In a comparative view with man, their formation seems much ruder and more imperfect; and they are in general found incapable of the docility even of quadrupeds. To these, however, they hold the next rank; and far surpass fishes and insects, both in the structure of their bodies, and in their sagacity.

In reference to the structure of birds of the most perfect order, a few things demand our attention.

The whole body is shaped in the most convenient manner for making its way through the air; being, as Mr. Ray observes, constructed very near Sir Isaac Newton's form of least resistance. According to Barr, in his continuation of Buffon, 'it is neither extremely massive, nor equally substantial in all its parts; but being designed to rise in the air, is capable of expanding a large surface without solidity. The body is sharp before, to pierce and make its way through that element: it gradually increases in bulk, till it has acquired its just dimensions, and falls off in an expansive tail.' The motion of birds being two-fold, walking and flying, they are provided with legs, at once wonderfully contrived to walk with, and raise them like a spring for their flight; wings to buoy them up, and waft them along; and a tail to keep them steady in the air, assist them in their evolutions, and direct them in their course.

Although the feathery covering of birds is admirably constructed for lightness and buoyancy, their wings are furnished with a strength that is amazing; and by these they are enabled to impel themselves forward with an inconceivable rapidity. To fit them the better for their flight, the feathers are disposed in the most perfect order, lying one way; and, that they may glide more smoothly along, they are furnished with a gland situated on the rump, from which they occasionally press out oil with the bill, and anoint the feathers.

Their beak or bill is a curious piece of art, formed of a hard horny substance, constructed in the most commodious manner for

piercing the air. Their ears stand not out from their head to retard their flight; and their eyes are placed in such situations as to take in nearly a hemisphere on either side.

Birds have no teeth to chew their food; but those of the granivorous kind are provided with two stomachs, in one of which the victuals is softened and macerated before it enters the other to be completely digested. Being often employed in traversing the upper regions, where they would be much incommoded did they bring forth their young in the manner of quadrupeds, their mode of generating is wisely made to differ, and their offspring are produced by means of eggs. In the speedy growth of young birds, by which they acquire a degree of strength and size, so as to be able so soon to provide for themselves, we have also an instance of the tender care of Providence.

What unseen power inspires these little creatures with 'the passion of the groves,' at the most fit season for forming their alliances! that is, when the genial temper of the weather covers the trees with leaves, the fields with grass, and produces such swarms of insects for the support of their future progeny. And how comes it to pass, that no sooner is the connubial league formed, than the little warblers immediately set about building their nests, and making preparation for their tender offspring? In the building of their nests, what art and ingenuity are displayed! Whether they are constructed from the collected portions of clay and mortar, or from the more light materials of moss and straw, they contrive to mould them into the most convenient forms, and to give them a durability proportionate to their wants. Nor is the wonder less, that birds of the same kind, however widely separated, should all follow the same order of architecture, in the construction of their habitations; that each should make choice of the situation most suitable to its kind; and that all should agree in laying as many eggs as to be sufficient to keep up their species, yet no more than they can conveniently hatch and bring up.

In the incubation, with what patience do these little creatures sit on their eggs when necessary, till the young are ready to be hatched, and then how officious in assisting the little prisoners to escape! With what inimitable care do they afterwards watch over and provide for their brood, until it is capable of doing so for itself; and with what scrupulous exactness, during this period, do they distribute to each its allotted portion of food!

The observations we have made are applicable to the feathery tribe in general; but when we turn to the peculiarities of a few of the different species, we shall observe that the wisdom and the goodness of God are no less conspicuous. How wonderful is the migration of some birds; or that surprising instinct by which 'the stork in the heavens knoweth her appointed times,' and 'the crane and the swallow observe the time of their coming!' Jeremiah viii. 7.

These are a few of the proofs of the wisdom and goodness of

God which this part of creation exhibit ; but, few as they are, they are sufficient to excite our admiration, and inspire us with sentiments of adoring gratitude to the Author of all being.

The common name for a bird in the Hebrew Scriptures, is *tzephur*, the *rapid mover*, or *hurrier* ; a name very expressive of these volatile creatures. A more general and indefinite name, is *ouph*, a *flier* ; but this appellation denotes every thing that flies, whether bird or insect. It is frequently translated 'fowl' in the English Bible. A bird of prey is called *oith*, a *rusher*, from the impetuosity with which it rushes upon its prey. In several of the passages where it occurs, our translators have rendered its plural form, by 'fowls.'

The number of birds already known, amounts, we believe, to between three and four thousand. To distinguish the different kinds from each other, and the varieties of the same kind, when they happen to differ, is a work of great difficulty ; and perhaps the attainment, when made, would not repay the labor. Linnæus divides all birds into six classes, namely ; birds of the *rapacious kind*—birds of the *pie kind*—birds of the *poultry kind*—birds of the *sparrow kind*—birds of the *duck kind*—and birds of the *crane kind*. The first four comprehend the various kinds of land birds ; the two last, those that belong to water.

From the Hebrew legislator, who had issued the strictest injunctions on the subject of animals, clean and unclean, we might naturally expect directions equally strict respecting birds ; a class no less distinguished among themselves, by their qualities and modes of life. But here his animal characteristics, derived from the feet, failed ; nor was it easy to fix on marks which should, in every instance, guide the learned and the unlearned, to a right conclusion. Hence, there is not in the Mosaic institutes, any reference to conformation, as the means of distinguishing birds into clean and unclean, lawful and unlawful ; a list of exceptions forms the sacred directory, and certain kinds are forbidden, without a word concerning those that are allowed.

In describing the various birds mentioned in Scripture, we shall adopt the three-fold arrangement to which reference was made in our introduction to Zoology.

SECTION I.  
AIR BIRDS.

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THE EAGLE.



THE Eagle, among birds, sustains the same rank as does the lion among beasts. Its great strength, rapidity, and elevation of flight, added to its natural ferocity and voracious disposition, have obtained for it the character of 'king of birds,' and confer upon it the power of inspiring terror into all its fellows of the air.

By the Hebrews, the eagle was called *nesher*, the *lacerator*; and as it is eminent for rapacity, and *tearing its prey into pieces*, the propriety of the designation is sufficiently obvious.

There are several kinds of the eagle, described by naturalists, and it is probable that the Hebrew *nesher* comprehends more than one of them. The largest and noblest species known, is that called by Bruce 'the golden eagle,' and by the Ethiopians, '*father long-beard*,'

from a tuft of hair which grows below its beak. From wing to wing, this bird measures eight feet, four inches: and from the tip of his tail to the point of his beak, when dead, four feet, seven inches. The weight of the one described by Mr. Bruce was twenty-two pounds; his middle claw was about two inches and a half in length.

Of all known birds, the eagle not only flies the highest, but also with the greatest rapidity. To this circumstance there are several striking allusions in the sacred volume. Among the evils threatened to the Israelites in case of their disobedience, the prophet names one in the following terms: 'The Lord shall bring a nation against thee from far, from the end of the earth, as swift as the eagle flieth,' Deut. xxviii. 49. The march of Nebuchadnezzar against Jerusalem, is predicted in the same terms: 'Behold, he shall come up as clouds, and his chariots as a whirlwind: his horses are swifter than eagles,' (Jer. iv. 13); as is, also, his invasion of Moab: 'For thus saith the Lord, Behold, he shall fly as an eagle, and shall spread his wings over Moab,' (chap. xlviii. 40); i. e. he shall settle down on the devoted country, as an eagle over its prey. See also, Lam. iv. 19; Hos. viii. 1; Hab. i. 8.

Of all birds, the eagle has the quickest eye; but his sense of smelling is not so acute. He never pursues his prey, therefore, except when in sight; but, having once obtained a view of it, such is the rapidity of his movement, that certain destruction ensues. To this Job alludes, in expressing the rapid flight of time: 'My days are swifter than a post: they flee away, they see no good. They are passed away as the swift ships; as the eagle that hasteth to the prey,' Job ix. 25, 26.

In general, these birds are found in mountainous and ill-peopled countries, and breed among the loftiest cliffs. Hence the sublime language of the prophet, in allusion to the pride and degradation of Moab: 'Though thou exalt thyself as the eagle, and though thou set thy nest among the stars, thence will I bring thee down saith the Lord,' (Obad. ver. 4); and also of Jeremiah, with reference to the neighboring country of Edom: 'Thy terribleness hath deceived thee, and the pride of thine heart. O! thou that dwellest in the clefts of the rock, that holdest the height of the hill: though thou shouldst make thy nest as high as the eagle, I will bring thee down from thence, saith the Lord,' ch. xlix. 16. Instead of the cleft of the rock, the eagle sometimes chooses the lofty cedar as the place of his residence; a circumstance not overlooked in the sacred volume: 'A great eagle with great wings, long-winged, full of feathers, which had divers colors, came unto Lebanon, and took the highest branch of the cedar,' Ezekiel xvii. 3.

The eagle, it is said, lives to a great age; and, like other birds of prey, sheds his feathers in the beginning of spring. After this season, he appears with fresh strength and vigor, and his old age assumes the appearance of youth. To this David alludes, when gratefully reviewing the mercies of Jehovah: 'Who satisfieth thy mouth



with good things, so that thy youth is renewed like the eagle's' (Psalm ciii. 5); as does the prophet, also, when describing the renovating and quickening influences of the Spirit of God: 'They that wait upon the Lord shall renew their strength; they shall mount up with wings as eagles; they shall run, and not be weary; and they shall walk, and not faint,' Isaiah xl. 31. It has been supposed that there is an allusion to the moulting of the eagle in Micah's charge to the people to mourn deeply, because of the judgments of God: 'Make thee bald, and poll thee for thy delicate children; enlarge thy baldness as the eagle,' (Micah i. 16); but we rather think that the allusion is to the natural baldness of some particular species of this bird, as that would be far more appropriate. The direction of the prophet is to a token of mourning, which was usually assumed by making bald the *crown* of the head; here, however, it was to be enlarged, extended, as the baldness of the eagle. Exactly answering to this idea is Mr. Bruce's description of the head of the 'golden eagle': the crown of his head was bare or bald; *so was the front, where the bill and skull joined*. The meaning of the prophet, therefore, seems to be, that the people were not to content themselves with shaving the *crown* of the head merely, as on ordinary occasions; but, under this special visitation of retributive justice, they were to extend the baldness over the entire head.

We have had frequent occasion to admire the intimate acquaintance which the writer of the book of Job displays with many parts of animated nature; his account of the eagle is characterised by great accuracy and beauty: chap. xxxix. 27—30.

To the last line in this passage, our Saviour seems to allude in Matt. xxiv. 28: 'Whosoever the carcass is, there will the eagles be gathered together;' that is, wherever the Jewish people, who were morally and judicially dead, might be, there would the Roman armies, whose standard was an eagle, and whose strength and fierceness resembled that of the king of birds, in comparison with his fellows, pursue and devour them.

In Deut. xxxii. 11, there is a beautiful comparison of the care and paternal affection of the Deity for his people, with the natural tenderness of the eagle for its young.

The remarkable circumstance of bearing the young upon her wings, is alluded to in another part of scripture, (Exod. xix. 4); and many passages in the writings of ancient authors countenance the idea, that the eagle actually takes up her timid young ones, and bears them on her wings till they venture to fly. It is not to be supposed that she waits her unfledged young through the voids of heaven, or to distant places; the meaning probably is, that she aids with her wings their feeble and imperfect attempts to fly, till emboldened by her example, and their own success, they fearlessly commit themselves to the air. So did Jehovah, says Paxton, for his chosen people. When they were slumbering in Goshen, or groaning in despair of recovering their freedom, he sent his servant Moses to rouse them from their inglorious sloth, to assert their lib-

erty,\*and to break their chains upon the heads of their oppressors. He carried them out of Egypt, and led them through the wilderness into their promised inheritance. He taught them to know their strength; he instructed them in the art of war; he led them to battle; and, by his almighty arm, routed their enemies.

It is remarkable that Cyrus, compared in Isaiah xli. 11, o an eagle (so the word translated 'ravenous bird' should be rendered), is by Xenophon said to have had an eagle for his ensign; using, without knowing it, the identical word of the prophet, with only a Greek termination to it. So exact is the correspondence betwixt the prophet and the historian, the prediction and the event.

In Lev. xi. 18, we read of the 'gier eagle' (Hebrew, RACHAM), though, being associated with water birds, it is doubtful whether any kind of eagle is intended.

There are two other species of the eagle or vulture, placed by Moses in his list of prohibited birds;—the *Ossifrage* and the *Osprey*, but they do not call for particular remark.

## THE HAWK AND THE KITE,



THIS bird, which is distinguished by the swiftness of its flight, is appropriately termed *the fier*, in the Hebrew scriptures. But the term is not confined to the individual species of bird properly called the hawk; it includes the various species of the falcon family, which is very numerous.

The hawk was highly venerated by the heathen, but it was pronounced unclean by the Jewish lawgiver; and was an abomination to the people of Israel. Its flesh was not to be eaten, nor its carcass touched with impunity. The reason of this law may probably be found in the dispositions and qualities of the bird; she is a bird of prey, and, by consequence, cruel in her temper, and gross in her manners. Her mode of living, too, may, perhaps, impart a disagreeable taste and flavor to the flesh, and render it, particularly in a warm climate, improper for the table.

Most of the species of hawks are birds of passage, to which circumstance there is a reference in Job xxxix. 26:

Doth the hawk fly by thy wisdom,  
And stretch her wings towards the south :

That is, 'doth she know, through thy skill and wisdom, the precise period for taking flight, or migrating and stretching her wings towards a southern or warmer climate?' Her migration is not conducted by the wisdom and prudence of man; but by the superintending and upholding providence of God.

The KITE may with propriety be noticed here, as it belongs to the same family of birds; and the scriptural references to it not being of sufficient importance to require a lengthened account of its nature and habits. It is remarkable for the quickness of its sight, to which there is evidently an allusion in Job xxviii. 7, though the 'vulture' is inserted in our authorized version :

There is a path which no fowl knoweth,  
And which the eye of the kite hath not seen.

The same word occurs in a plural form in Isaiah xiii. 22; chap. xxxiv. 14; and Jer. l. 39; in all which places our translation reads 'wild beasts of the islands,' which Bochart understands of 'jackals;' but by the several contexts, as Parkhurst remarks, and particularly the last, it may as well denote a kind of unclean birds,

## THE RAVEN,



THE sable color of this bird is fully recognised in its Hebrew appellation, which is taken from *oreb, the evening*. Bochart has well remarked, that the color of a crow or raven is not a dead, but a *glossy shining black*, like silk, and so is properly a mixture of darkness and splendor. Black appears to have been a color held in high estimation by the ancients; and black eyes and raven locks entered into their ideas of female loveliness. In conformity with this opinion is the declaration of the spouse, with reference to her beloved: 'His pendulous locks are as black as a raven,' Cant. v. 11.

The raven is found in every region of the world. Strong and hardy, it is uninfluenced by the changes of the weather; and when other birds seem numbed with the cold, or pining with famine, the raven is active and healthy, busily employed in prowling for prey, or sporting in the coldest atmosphere. An active and greedy plunderer, nothing comes amiss to him; whether his prey be living, or long dead, it is all the same,—he falls to with a voracious appetite, and when he has gorged himself, flies to acquaint his fellows, that they may participate in the spoil.

Solomon appears to give a distinct character to some of the ravens in Palestine, when he says, 'The eye that mocketh at his father, and despiseth to obey his mother, the ravens of the valley shall pick it out, and the young eagles shall eat it,' Prov. xxx. 17. In this

passage, says Paxton, the wise man may allude to a species of raven which prefers the valley for her habitation to the clefts of the rock ; or he may, perhaps, refer to some sequestered valley in the land of promise, much frequented by these birds, which derived its name from that circumstance ; or, as the rocky precipice where the raven loves to build her nest often overhangs the torrent (which the original word also signifies), and the lofty tree, which is equally acceptable, rises on its banks, the royal preacher might, by that phrase, merely intend the ravens which prefer such situations. Bochart conjectures, that the valley alluded to was Tophet, in the neighborhood of Jerusalem, which the prophet Jeremiah calls the valley of the dead bodies, because the dead bodies of criminals were cast into it, where they remained without burial, till they were devoured by flocks of ravens, which collected for that purpose from the circumjacent country. If this conjecture be right, the meaning of Solomon will be this: He who is guilty of so great a crime, shall be subjected to an infamous punishment ; he shall be cast into the valley of dead bodies, and shall find no grave, but the devouring maw of the impure and voracious raven. The wise man insinuates, that the raven makes his first and keenest attack on the eye ; which perfectly corresponds with his habits, for he always begins his banquet with that part of the body.

The earliest notice which we have of the raven in scripture, is in the account of the deluge, (Gen. viii. 7 ;) whence we learn, that on the decrease of the waters, Noah sent out this bold and adventurous bird, to ascertain the state of the surrounding country.

The remarkable occurrence in the history of Elijah (1 Kings xvii. 4—6), has given rise to considerable discussion.

Let us suppose, for a moment, that Elijah was concealed in some rocky or mountainous spot, where passengers never strayed ; and that here a number of voracious birds had built their nests on the trees which grew around it, or on projections of rocks, &c. : these flying every day to procure food for their young, the prophet avails himself of a part of what they brought, and while they, obeying the dictates of nature, designed only to provide for their offspring, Divine Providence directed them to provide, at the same time, for the wants of Elijah ; so that what he gathered, whether from their nests, from what they dropped or brought to him, or occasionally from both means, was enough for his daily support. 'And the orebins furnished him bread, or flesh, in the morning, and bread, or flesh, in the evening.' But there being a good many of them, Mr. Taylor inclines to think that some of them might furnish bread, and others flesh, at different times ; so that a little from each made up his solitary, but satisfactory meal. To such straits was the exiled prophet driven, and such was the dependence of this zealous man of God !

The objection which has been urged against the raven being employed on this errand of mercy, from its very gross and impure disposition, may be in some measure removed by considering that the

Hebrew name, as already observed, includes the whole of this genus of birds, among which we find some less impure than the raven; as the rook, which species Mr. Taylor inclines to believe was the one employed. As to God's 'commanding' the ravens, it will be found a mode of speech adopted where vocal commands could not be employed. See Job xxxviii. 11; Psalm lxxviii. 23; Isaiah xlv. 12. To *command* the ravens, then, may only denote that God made use of them in providing for the necessities of his servant.

It is said by naturalists, that the ravens drive out their young ones early from the nest, and oblige them to seek food for their own sustenance. It is to this fact, probably, that the Psalmist alludes, when he says, 'The Lord giveth to the beast his food, and to the young ravens which cry,' (Psalm cxlvii. 9); and Job: 'Who provideth for the raven his food? when his young ones cry unto God, wandering for want of meat,' ch. xxxviii. 41. But the care of Providence, says professor Paxton, is not confined to the young; it extends also to the parents, that, like their brood, 'neither sow nor reap, have neither storehouse nor barn,' (Luke xii. 24); and supplies them with food from his inexhaustible stores. Whatever may be their character and habits, they are the work of infinite wisdom and power; and if it be not unbecoming the Almighty Creator to make such creatures, it cannot be unbecoming to provide for their support. They, too, have their sphere of action; and their qualities and instincts are usefully employed, both for themselves, and the other parts of the terrestrial creation; even the incanness of their character is of no small advantage to the considerate mind, in allaying his fears, and in exciting and establishing his confidence in the wise and bountiful arrangement of Providence. The argument of our Lord is exceedingly strong and pointed. If the Almighty hear not in vain the croaking of a young raven, he surely will not turn a deaf ear to the supplications of his own people.

## THE DOVE.



THIS beautiful and gentle creature was called, by the Hebrews, *yonch*, which signifies *mildness, gentleness, &c.* Parkhurst derives the Hebrew name from a root which admits the sense of *defenceless, and exposed to rapine and violence*; remarkable characteristics of this lovely bird, and which are accordingly noticed by some of the ancient poets.

The dove, which is used in scripture as the symbol of simplicity, innocence, and fidelity, furnishes the sacred writers with many beautiful allusions. From the earliest times, it appears to have been offered in sacrifice, (Gen. xv. 9); and in the Mosaic ritual it is repeatedly prescribed for this use.

The dove is universally admitted to be one of the most beautiful objects in nature. The brilliancy of her plumage, the splendor of her eye, the innocence of her look, the excellence of her dispositions, and the purity of her manners, have been the theme of admiration and praise in every age. To the snowy whiteness of her wings, and the rich golden hues which adorn her neck, the inspired Psalmist has been thought to allude in these elegant strains: 'Though ye have lien among the pots, yet ye shall be as the wings of a dove, covered with silver, and her feathers with yellow gold,' Psalm lxxviii. 13. Mr. Harmer is of opinion, however, that the Psalmist alludes, not to an animal adorned merely by the hand of nature, but to the doves consecrated to the Syrian deities, and ornamented with trinkets of gold. Agreeably to this view, he interprets the passage thus: 'Israel is to me as a consecrated dove; and though your circumstances have made you rather appear, like a dove, blackened by taking up its abode in a smoky hole of the rock; yet shall ye become beautiful and glorious as a Syrian silver-colored pigeon, on whom some ornament of gold is put. But this view of the passage, as Professor Paxton observes, makes the Holy Spirit speak with some approbation, or at least without censure, of a heathenish rite, and even to borrow from it a figure to illustrate the effects of Divine favor among his chosen people; and as no other instance of the kind occurs in scripture, he thinks it cannot be ad-

mitted here, without much stronger evidence than that respectable writer has produced.

Mr. William Baxter gives another translation of the passage, remarking, 'It was the custom for the Hebrew armies, as well as the Syrians and Assyrians, to have a dove for their standard; to which the Psalmist alluding, says, 'If you shall abide by your standard, the silver-colored dove, whose wings are gilt with gold, when the Almighty by its means has scattered the kings, the marks of victory shall be displayed in your ensign, and your dove appear as white as snow.' All interpreters have blindly followed the Septuagint in this place, who, either ignorantly, or perhaps wilfully, rendered it obscure; for, being unwilling to gratify the Syrians, who worshipped a dove, with so honorable a mention of their deity, instead of translating the Hebrew word, a *standard*, as they ought to have done, they made a proper name of it, and rendered it Mount *Selmon*.'

The author of 'Scripture Illustrated' enlarges upon this construction, and gives a new version, accompanied by remarks, which elucidate other passages. These, Dr. Harris has transferred into his *Natural History*, with a few emendations; and in this corrected state we shall copy them here.

After having remarked that the whole of the psalm appears to be a triumphal ode for success in battle, the doctor inquires how is it possible that the same persons who had put to flight these kings, and had taken the spoil home to their families, should *lie among the pots*! How should these soldiers suffer such disgrace, and that at the very time when they enjoy the victory!—This is inconceivable; but if we recollect that the *standard* of the dove was used as a military ensign, and suppose it to be alluded to here, then we have an entirely distinct view of the article, and may understand it accordingly:

That the dove was a *military ensign*, may be gathered from the history in the *Chronicon Samaritanum*, where we read that 'the Romans placed a pigeon [or dove] on Mount Gerizim, to hinder them from going thither to worship with troops. Some Samaritans attempted to go up; but the bird discovered them, and cried out, *The Hebrews!* The guards awoke, and slew those who were coming up.' Understand here a military sentry and ensign, and 'the dove' becomes intelligible at once.

The *paleeness* of the kings, who accompanied this banner, is extremely characteristic of their appearance when they saw their sacred emblem cast down, and trampled on by the Israelites; or, if they themselves, in their haste cast it down, that they might flee the more swiftly, the shame is equal.

These and other considerations lead to the conclusion, 1st. that the dove was certainly used as a military ensign, and 2dly, that as the Assyrians were eminent and ancient worshippers of the dove, it might be supposed to be appropriately their banner or standard. This will authorise a translation of several passages of scripture different from our present public version.



Jeremiah, speaking of the ravages which would be committed in Judea by Nebuchadnezzar, says, 'The land is desolate because of the fierceness of the dove.' And again, 'Let us go to our own people, to avoid the sword of the dove;' and in another place, 'They shall flee every one, for fear of the sword of the dove.' Each of these places is intelligible, by supposing that the king of the Chaldeans is referred to, who bore a dove in his ensigns, in memory of Semiramis.

The surprising brightness of the dove's eye, and the simplicity of her look, which is directed only to her mate, are selected by the Spirit of God, to express the purity and fidelity of a genuine believer. 'Behold, thou art fair, my love; behold, thou art fair; thou hast doves' eyes,' Cant. i. 15. A faithful index of the holiness which reigns within; they neither court the notice, nor meet the glance of a strange lord. The same beautiful image is employed to represent the peerless excellences of the Redeemer, and particularly his infinite wisdom and knowledge, which are ever exercised for the good of his people; which are pure and holy, and in the estimation of every saint, as in their own nature, ineffably precious and lovely: 'His eyes are as the eyes of doves by the rivers of waters, washed with milk, and fitly set,' Cant. v. 12. The eyes of a dove, always brilliant and lovely, kindle with peculiar delight by the side of a crystal brook, for this is her favorite haunt; here she loves to wash, and to quench her thirst. But the inspired writer seems to intimate that, not satisfied with a single rivulet, she delights especially in those places which are watered with numerous streams, whose full flowing tide approaches the height of the banks, and offers her an easy and abundant supply. They seem as if they were washed with milk, from their shining whiteness; and fitly, or rather fully set, like a gem set in gold, neither too prominent nor too depressed; but so formed, as with nice adaptation, to fill up the socket. So precious and admirably fitted to the work of mediating between God and man, are the excellences of Jesus Christ. God and man in one person, he is at once invested with all the attributes of Deity, and all the perfections of which our nature is capable. As the eternal Son of God, he is wisdom and prudence itself; and as the Son of man, he is 'holy, harmless, undefiled, and separate from sinners:' 'He is white and ruddy, the chief among ten thousands: yea, he is altogether lovely.'

The manners of the dove are as engaging as her form is elegant, and her plumage rich and beautiful. She is the chosen emblem of simplicity, gentleness, purity, and feminine timidity. Our blessed Lord alludes with striking effect to her amiable temper, in that well-known direction to his disciples, 'Be ye wise as serpents, and harmless as doves,' Matt. x. 16. Wisdom, without simplicity, degenerates into cunning—simplicity, without wisdom, into silliness: united, the one corrects the excess or supplies the defects of the other, and both become the objects of praise; but separated, neither the wisdom of the serpent, nor the simplicity of the dove, obtains in

this passage the Saviour's commendation. The character which is compounded of both makes the nearest approach to the true standard of Christian excellence. The wisdom of the serpent enables the believer to discern between good and evil, truth and error, that, having proved all things, he may hold fast that which is good; the simplicity of the dove renders him inoffensive and sincere, that he may not deceive nor injure his neighbor. Such were the qualities which the Saviour recommended to his followers, and his apostle wished the Romans to obtain: 'I would have you wise unto that which is good, and simple concerning evil,' chap. xvi. 19.

The mourning of the dove (Isaiah xxxviii. 14: lix. 11) alludes to the plaintive murmuring of this bird, particularly of the turtle-dove, which is said to be disconsolate and to die with grief at the loss of its mate. To this circumstance Nahum also refers, when predicting the desolation of Nineveh:—'Huzzab shall be led away captive; she shall be brought up, and her maids shall lead her as with the voice of doves taberning upon their breasts,' chap. ii. 7.

It is supposed, that in Eccles. x. 20, there is an allusion to the custom, so long and extensively adopted, of employing these birds as couriers to carry tidings from one place to another: 'Curse not the king, no, not in thy thought; and curse not the rich in thy bed-chamber; for a bird of the air shall carry the voice, and they which have wings shall tell the matter.'

The conjugal fidelity of the dove has been noticed by every writer who has treated of her character. She admits but of one mate, to whom she seems most affectionately attached, and from whom she is never known to separate while life continues. The black pigeon, it is said, after the death of her mate, continues in a widowed state for life: the intense grief of the turtle-dove on this occurrence we have already noticed. This may help to illustrate those passages of scripture in which the undivided affection and indissoluble union which subsist between the Saviour and his church are represented. 'Oh, my dove, that art in the clefts of the rock, in the secret places of the stars, let me see thy countenance, let me hear thy voice; for sweet is thy voice, and thy countenance comely,' Cant. ii. 14. 'My dove, my undefiled is but one; she is the only one of her mother, she is the choice one of her that bare her,' ch. vi. 9.

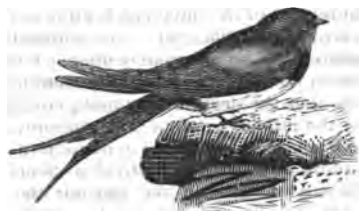
In the New Testament, the dove is the chosen emblem of the Holy Spirit, who, in the economy of grace, is not only the messenger of peace and joy to sinful men, but also the author of those gentle and peaceable dispositions of mind, which characterise, in every part of the world, the true believer in Christ: The fruit of the Spirit is love, joy, peace, long-suffering, gentleness, goodness, faith [or fidelity], meekness, temperance,' Gal. v. 22.

During the siege of Samaria, by Ben-hadad, king of Syria, we are informed (2 Kings vi. 25) that so pressing was the famine, an ass's head was sold for fourscore pieces of silver, and the fourth part of a cab of *dove's dung* for five pieces of silver. This, howev-

er, was not what its name would seem to import, but a kind of pulse or pea, which is common in Judea, and to which the Arabians give this name. See 2 Sam. xvii. 28.

The **TURTLE** is only a variety of the dove, as is also the common pigeon. The former is something the smaller of the two; but the principal difference between this and the other birds, is in its migratory disposition. To this circumstance there is evidently an allusion in Jer. viii. 7: 'The stork in the heaven knoweth her appointed times; and the turtle, and the crane, and the swallow, observe the time of their coming.' It is also referred to in Cant. ii. 11, 12, where it is recognised as the welcome harbinger of the returning spring: 'Rise up, my love, my fair one, and come away; for, lo! the winter is past, the rain is over and gone, the flowers appear on the earth, the time of the singing of birds is come, and the voice of the turtle is heard in our land.'

### THE SWALLOW.



THE only mention of this bird is in Isaiah xxxviii. 14., and Jeremiah viii. 7. In the former passage, Hezekiah, referring to the severity of his recent affliction, says, 'Like a swallow, or a crane, so did I chatter.' The note of the swallow, being quick and mournful, the allusion of the king has been supposed to be to his prayers, which were so interrupted by groanings, as to be but like the quick twitterings of the swallow. This seems to have occasioned the pious monarch to regard with suspicion the sincerity and fervor of his supplications, thus delivered but in broken accents; and in bitterness of spirit he casts himself upon the unbounded mercy of his God, exclaiming, 'O Lord, I am oppressed; undertake for me.' The passage in Jeremiah, refers to the well-known migration of this bird; a circumstance from which the faithful prophet takes occasion to reprove the ingratitude and infidelity of the favored tribes: 'The turtle, and the crane, and the swallow, observe the time of their coming; but my people know not the judgment of the Lord

## THE SPARROW.



In the sacred writings, the word *tzeppur*, which is a general term applied to the feathered race, is in a more restricted sense appropriated to the sparrow. This remark is the more necessary to be borne in mind, because some translators, and among them the English, have introduced the sparrow into the text, where this bird was evidently not intended by the inspired writers. Our own translation, however, requires correction but in one passage, namely, Psalm cii. 7: 'I watch, and am as a sparrow alone upon the house-top.' To justify this translation, interpreters have represented the sparrow as a solitary, moping bird, which loves to dwell on the house-top alone; and so timid, that she endeavors to conceal herself in the darkest corners, and passes the night in sleepless anxiety. But her character and manners by no means agree with this description. On the contrary, she is a pert, loquacious, bustling creature; which, instead of courting the dark and solitary corner, is commonly found chirping and fluttering about in the crowd. The term in this text, therefore, must be understood in its general sense, and probably refers to some variety of the owl. Jerom renders it, 'I was as a solitary bird on the roof.' The Hebrew text contains nothing which can with propriety suggest the sparrow, or any similar bird: and, indeed, nothing seems to be more remote from the mind of David: all the circumstances indicate some bird of the night; for the Psalmist, bending under a load of severe affliction, shuns the society of men, and mingles his unceasing groans and lamentations with the mournful hootings of those solitary birds, which disturb the lonely desert. 'By reason of the voice of my groanings, my bones cleave to my skin; I am like a pelican of the wilderness; I am like an owl of the desert.' He then proceeds with his comparison: 'I watch, and am as a bird upon the house-top alone.' I watch; that is, I have

spent a sleepless night; or, as it is paraphrased in the Chaldee, 'I have watched the whole night long, without once closing my eyes.' Every part of this description directs our attention to some nocturnal bird, which hates the light, and comes forth from its hiding-place when the shadows of evening fall, to hunt the prey, and, from the top of some ruined tower, to tell its joys or its sorrows to a slumbering world.

A passage in the eighty-fourth psalm, which was probably penned by the royal minstrel when driven from his throne and the sacred temple, by the rebellion of his unnatural son, refers to this bird. Ardently desirous of associating with the people of God in the prescribed ordinances of public worship, the pious Psalmist seems to envy these birds their proximity to the sacred altar: 'The sparrow hath found out a house, and the swallow a nest for herself, where she may lay her young, even thine altars, O Lord of Hosts, my King and my God,' ver. 3. Parkhurst's translation removes some of the difficulties of the usual reading: 'Even [as] the sparrow findeth her house, and the dove her nest where she hath laid her young, [so shall I find] thine altars, O Jehovah of Hosts, my King, and my God.'

Among the appropriate and felicitous illustrations interwoven with our Lord's arguments for a special or particular providence, is one taken from the care of our heavenly Father exercised towards this mean and generally despised bird: 'Are not two sparrows sold for a farthing? and one of them shall not fall on the ground without your Father,' (Matthew x. 29); or, according to Luke, 'not one of them is forgotten before God,' ch. xii. 6. Not that we are to conclude from these texts, as Pope has falsely done, that

'He views with equal eye, as Lord of all,  
A hero perish, or a sparrow fall;'

a sentiment not less opposed to the dictates of enlightened reason, than it is to the whole scope of our Saviour's discourse, (Matt. ch. vi.) from which we learn, that the love of God to his creatures is in proportion to their excellence in the scale of being, and that by these considerations the care of his providence is regulated. 'Behold the fowls of the air: for they sow not, neither do they reap nor gather into barns; yet your heavenly Father feedeth them, *Are ye not much better than they?*' ver. 26.

**SECTION II.**  
**LAND BIRDS.**

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**THE OSTRICH.**



**THE ostrich is considered to be the largest of birds, and the connecting link between quadrupeds and fowls. Its head and bill some-**

what resemble those of a duck ; and the neck may be compared to that of a swan, but that it is much longer. The legs and thighs resemble those of a hen, but are very fleshy and large. The end of the foot is cloven, and has two very large toes, which, like the leg, are covered with scales. These toes are of unequal sizes ; the largest, which is on the inside, being seven inches long including the claw, which is near three-fourths of an inch in length, and almost as broad ; the other toe is but four inches long, and is without a claw. The height of the ostrich is usually seven feet, from the head to the ground ; but from the back it is only four : so that the head and the neck are above three feet long. From the head to the end of the tail, when the neck is stretched in a right line, it is seven feet long. One of the wings, with the feathers stretched out, is three feet in length. The plumage is generally white and black, though some of them are said to be grey. There are no feathers on the sides of the thighs, nor under the wings. The lower half of the neck is covered with smaller feathers than those on the belly and back, and the head and upper part of the neck are covered with hair. At the end of each wing, there is a kind of spur, resembling the quill of a porcupine, about an inch long, and about a foot lower down the wing is another of the same description, but something smaller.

The ostrich has not, like most other birds, feathers of various kinds ; they are all bearded with detached hairs or filaments, without consistence and reciprocal adherence. The consequence is, that they cannot oppose to the air a suitable resistance, and therefore are of no utility in flying, or in directing the flight. Besides the peculiar structure of her wings, the ostrich is rendered incapable of flight by her enormous size, weighing seventy-five or eighty pounds ; a weight which would require an immense power of wing to elevate into the air.

The ostrich is a native only of the torrid regions of Africa and Arabia, and has furnished the sacred writers with some of their most beautiful imagery. The following descriptions and illustrations are chiefly selected from Professor Paxton and Dr. Harris.

The ostrich was aptly called by the ancients a lover of the deserts. Shy and timorous in no common degree, she retires from the cultivated field, where she is disturbed by the Arabian shepherds and husbandmen, into the deepest recesses of the Sahara. In those dreary wastes, she is reduced to subsist on a few tufts of coarse grass, which here and there languish on their surface, or a few other solitary plants equally destitute of nourishment, and in the Psalmist's phrase, even 'withered before they are grown up.' To this dry and parched food may perhaps be added, the great variety of land-snails which occasionally cover the leaves and stalks of these herbs, and which may afford her some refreshment. Nor is it improbable, that she sometimes regales herself on lizards and serpents, together with insects and reptiles of various kinds. Still, however, considering the voracity and size of this camel-bird, (as it is called in the East,) it is wonderful how the little ones should

be nourished and brought up, and especially how those of fuller growth, and much better qualified to look out for themselves are able to subsist.

The attachment of this bird to the barren solitudes of the Sahara, is frequently alluded to in the Holy Scriptures; particularly in the prophecies of Isaiah, where the word *יונה*, unfortunately translated owl in the English Bible, ought to be rendered ostrich. In the splendid palaces of Babylon, so long the scenes of joy and revelry, the prophet foretold, that the shy and timorous ostrich should fix her abode; than which a greater and more affecting contrast can scarcely be presented to the mind.

When the ostrich is provoked, she sometimes makes a fierce, angry, and hissing noise, with her throat inflated, and her mouth open; when she meets with a timorous adversary that opposes but a faint resistance to her assault, she chuckles or cackles like a hen, seeming to rejoice in the prospect of an easy conquest. But in the silent hours of night, she assumes a quite different tone, and makes a very doleful and hideous noise, which sometimes resembles the roaring of a lion; and at other times, that of the bull and the ox. She frequently groans, as if she were in the greatest agonies; an action to which the prophet beautifully alludes: 'I will make a mourning like the ostrich' Micah, i. 8. The Hebrew name of the bird is derived from a verb which signifies to exclaim with a loud voice, and may therefore be attributed with sufficient propriety to the ostrich, whose voice is loud and sonorous; especially, as the word does not seem to denote any certain determined mode of voice or sound peculiar to any one particular species of animals, but one that may be applicable to them all. Dr. Brown says, the cry of the ostrich resembles the voice of a hoarse child, and is even more dismal. It cannot, then, but appear mournful, and even terrible, to those travellers who plunge with no little anxiety into those immense deserts, and to whom every living creature, man not excepted, is an object of fear, and a cause of danger.

Not more disagreeable, and even alarming, is the hoarse moaning voice of the ostrich, however, to the lonely traveller in the desert, than were the speeches of Job's friends to that afflicted man. Of their harsh and groundless censures, which were continually grating his ears, he feelingly complains: 'I am a brother to dragons, and a companion to owls [ostriches].' Like these melancholy creatures that love the solitary place, and the dark retirement, the bereaved and mourning patriarch loved to dwell alone, that he might be free from the teasing impertinence of his associates, and pour out his sorrows without restraint. But he made a wailing also like the dragons, and a mourning like the ostriches; his condition was as destitute, and his lamentations as loud and incessant as theirs. Or, he compares to those birds his unfeeling friends, who, instead of pouring the balm of consolation into his smarting wounds, added to the poignancy of his grief by their inhuman conduct. The ostrich, even in a domestic state, is a rude and fierce animal; and is



said to point her hostility, with particular virulence, against the poor and destitute stranger that happens to come in her way. Not satisfied with endeavoring to push him down by running furiously upon him, she will not cease to peck at him violently with her bill, and to strike at him with her feet, and will sometimes inflict a very serious wound. The dispositions and behavior of Job's friends and domestics were equally vexatious and afflicting; and how much reason he had to complain, will appear from the following statement: 'They that dwell in mine house, and my maidens, count me for a stranger; I am an alien in their sight. I called my servant, and he gave me no answer; my breath is strange to my wife, though I entreated for the children's sake of mine own body; yea, young children despised me, all my inward friends abhorred me. Upon my right hand rise the youth; they push away my feet, and they raise up against me the ways of their destruction. They mar my path, they set forward my calamity, they have no helper. They come upon me as a wide breaking in of waters, in the desolation they roll themselves upon me,' ch. xxx. 12—14.

There is a very correct and poetical description of the ostrich, in the thirty-ninth chapter of the book of Job.

Our translators appear to have been influenced by the vulgar error, that the ostrich did not herself hatch her eggs by sitting on them, but left them to the heat of the sun. This, however, is not the fact. She usually sits upon her eggs as other birds do; but then she so often wanders, and so far in search of food, that frequently the eggs are addle, by means of her long absence from them. To this we may add, that when she has left her nest, whether through fear or to seek food, if she light upon the eggs of some other ostrich, she sits upon them, and is unmindful of her own.

'On the least noise or trivial occasion,' says doctor Shaw, 'she forsakes her eggs, or her young ones, to which, perhaps, she never returns; or if she does, it may be too late either to restore life to the one, or to preserve the lives of the others. Agreeable to this account, the Arabs meet sometimes with whole nests of these eggs undisturbed; some of them are sweet and good, others are addle and corrupted; others, again, have their young ones of different growth, according to the time, it may be presumed, they may have been forsaken of the dam. They often meet with a few of the little ones no bigger than well-grown pullets, half starved, straggling and moaning about, like so many distressed orphans for their mother. In this manner the ostrich may be said to be *hardened against her young ones, as though they were not her's*; her labor, in hatching and attending them so far, being *vain, without fear*, or the least concern of what becomes of them afterwards. This want of affection is also recorded in Lam. iv. 3. "The daughter of my people is become cruel, like ostriches of the wilderness;" that is by apparently deserting their own, and receiving others in return. Hence, one of the great causes of lamentation was, the coming in of strangers and enemies into Zion, and possessing it. Thus, in the twelfth verse

of this chapter, it is said, "The kings of the earth, and all the inhabitants of the world, would not have believed that the adversary and the enemy should have entered into the gates of Jerusalem;" and in ch. v. 2, "Our inheritance is turned to strangers, our houses to aliens."

The ostrich, in her private capacity, is not less inconsiderate and foolish, particularly in the choice of food, which is often highly detrimental and pernicious to her; for she swallows everything greedily and indiscriminately, whether it be pieces of rags, leather, wood, stone, or iron. They are particularly fond of their own ordure, which they greedily eat up as soon as it is voided: no less fond are they of the dung of hens and other poultry. It seems as if their optic, as well as their olfactory nerves, were less adequate and conducive to their safety and preservation, than in other creatures. The Divine Providence in this, no less than in other respects, 'having deprived them of wisdom, neither hath it imparted to them understanding.' This part of her character is fully admitted by Buffon, who describes it in nearly the same terms.

Notwithstanding the stupidity of the ostrich, says Dr. Shaw, its Creator hath amply provided for its safety, by endowing it with extraordinary swiftness, and a surprising apparatus for escaping from its enemy. They, 'when they raise themselves up for flight, laugh at the horse and his rider.' They afford him an opportunity only of admiring at a distance the extraordinary agility, and the stateliness likewise, of their motions, the richness of their plumage, and the great propriety there was in ascribing to them *an expanded quivering wing*. Nothing, certainly, can be more entertaining than such a sight; the wings, by their rapid but unwearied vibrations, equally serving them for sails and oars; while their feet, no less assisting in conveying them out of sight, are no less insensible of fatigue.

The surprising swiftness of this bird is expressly mentioned by Xenophon, in his *Anabasis*; for, speaking of the desert of Arabia, he states that the ostrich is frequently seen there; that 'none could take them, the horsemen who pursue them soon giving it over; for they escaped far away, making use both of their feet to run, and of their wings, when expanded, as a sail to waft them along.' This representation is confirmed by the writer of a voyage to Senegal, who says, 'She sets off at a hard gallop; but, after being excited a little, she expands her wings as if to catch the wind, and abandons herself to a speed so great, that she seems not to touch the ground.' 'I am persuaded,' continues the writer, 'she would leave far behind the swiftest English courser.' Buffon, also, admits that the ostrich runs faster than the horse.

## THE PEACOCK.



Our translators have very improperly introduced the peacock into Job xxxix. 13, as the bird was unknown in Syria till the days of Solomon. In the first book of Kings (ch. x. 22), and the parallel passage of the second of Chronicles (ch. ix. 21), it is enumerated among the costly articles imported by the ships of Tarshish, employed by the Hebrew monarch to enrich his country with the produce of foreign nations. Let any one attentively survey the peacock in all the glorious display of the prismatic colors in his train, says Parkhurst, and he will not be surprised that Solomon's mariners, who cannot be supposed ignorant of their master's taste for natural history, should bring some of these wonderful birds with them, from their southern expedition.

The peacock is a bird originally of India, and thence brought in-

to Persia and Media. The fleet of Solomon might easily procure it, either from India itself, or from Persia.

The peacock is admitted to be one of the most beautiful birds of the feathered tribes. The feathers of its tail are frequently four feet in length, and when expanded, present a mixture of the most delightful colors. Its head, neck, and breast, are of a beautiful blue color; the back and upper part of the wings are light ash, mixed with black stripes; and on its head it carries a plume of greenish feathers. The dispositions of the peacock, however, are of a very different character from its plumage; and the common people of Italy are said to characterize it truly, who say it has the plumage of an angel, and the voice of a devil. The loud scream of its voice grates unpleasantly on the ear; and its insatiable gluttony, and spirit of depredation, more than counterbalance the beauty of its external form.

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## THE OWL.



If the reader will turn to the account of the ostrich, he will see that we have referred several passages of scripture to that bird, which, in our translations of the Bible, are interpreted of the owl.

In addition to these passages, there are others in which our version introduces the owl without reason, as the original writers no doubt intended birds of another description.

The race of owls presents several varieties, all equally cruel and rapacious; and who add to their savage disposition the further reproach of treachery, by carrying on all their depredations by night. Thus, as Goldsmith remarks, there seems no link in Nature's chain broken, no where a dead, inactive repose; but every place, every season, every hour of the day and night, is bustling with life, and furnishing instances of industry, self-defence, and invasion.

The owl tribe, however they may differ in their size and plumage, agree in their general characteristics of preying by night, and having their eyes formed for nocturnal vision. In the eyes of all animals, the Author of their being has made a complete provision either to shut out too much light, or to admit a sufficiency, by the dilation and contraction of the pupil. As in the eyes of tigers and cats, that are formed for a life of nocturnal depredation, there is a quality in the retina that takes in the rays of light so copiously as to permit their seeing in places almost totally dark; so, in owls, there is the same conformation of that organ; and though, like us, they cannot see in a total exclusion of light, yet they are sufficiently quick-sighted at times when we remain in total obscurity. Besides this, there is an irradiation on the back of the eye, and the very iris itself has a faculty of reflecting the rays of light, so as to assist vision in the gloomy places these birds are found to frequent.

Predicting the desolation of Idumea, the prophet Isaiah says, her palaces shall be a resting place for 'the screech-owl' (Isaiah xxxiv, 14), whose horrid and terrifying cry would form a sad contrast to the melody of the harp and the tabret, which then resounded within their walls. But to show, probably, the extent and permanency of that desolation which was threatened, the prophet in the next verse represents the devoted country as becoming the constant abode of birds of prey, among which the one we are describing was to be found: 'There shall the great owl make her nest, and lay and hatch, and gather under her shadow.'

## THE PARTRIDGE.



THE Hebrew name of this bird, *KER*, was evidently taken from its note—

‘I love to hear the cur  
Of the night-loving partridge.’

Forskal mentions a partridge whose name in Arabic is *kurr*; and Latham says, that in the province of Andalusia, in Spain, its name is *churr*: both taken, no doubt, like the Hebrew, from its note. As this bird is so well known in every part of the world, a particular description is unnecessary.

There are only two passages of scripture in which the partridge is mentioned; but these will repay an attentive examination. The first occurs in the history of David, where he expostulates with Saul concerning his unjust and foolish pursuit of him: ‘The king of Israel is come out to seek a flea, as when one doth hunt a partridge on the mountains,’ 1 Sam. xxvi. 20.

The learned Bochart objects to the partridge in this place, and contends that the *ker* is more likely to be the woodcock, since the partridge is not a mountain bird. This, however, is a mistake: there is a species of the partridge which exactly answers to the description of David; and those of Barakonda, in particular, are said to choose the highest rocks and precipices for their residence. The method by which Dr. Shaw states the Arabs to hunt the partridge, affords a lively comment on the words of the Psalmist: ‘The Arabs have another, though a more laborious, method of catching these birds; for, observing that they become languid and fatigued after they have been hastily put up twice or thrice, they immediately run in upon

them, and knock them down with their *zerwattys*, or bludgeons.' It was precisely in this manner that Saul hunted David, coming hastily upon him, and putting him up from time to time, in hopes he should at length, by frequent repetitions of it, be able to destroy him.

In addition to this method of taking the partridge, Dr. Shaw states, that the Arabs are well acquainted with that mode of catching them, which is called *tunnelling*; and to make the capture the greater, they will sometimes place behind the net a cage, with some tame ones within it, which, by their perpetual chirping and calling, quickly bring down the coveys that are within hearing, and thereby decoy great numbers of them. This, he remarks, may lead us into the right interpretation of Eccles. xi. 30, which we render 'like as a partridge taken [and kept] in a cage, so is the heart of the proud; but it should be, 'Like a decoy partridge in a cage, so is,' &c.

The other passage in which this bird is mentioned, is Jer. xvii. 11, 'As the partridge sitteth on eggs, and hatcheth them not; so he that getteth riches, and not by right, shall leave them in the midst of his days, and at his end shall be a fool.' It seems to be clear, says Mr. Taylor, that this bird sitteth on *eggs not its own*, to answer to the *getting of riches not by right*; from these eggs it is driven away, *leaves them in the midst of his days*, before the time for hatching is expired. But why should it be said of the partridge, rather than of any other bird, that it sitteth and hatcheth not? The reason is plain, when it is known, that this bird's nest being made on the ground, the eggs are frequently broken by the foot of man, or other animals, and she is often obliged to quit them by the presence of intruders, which chills the eggs, and renders them unfruitful. Rain and moisture also may spoil them. Observing that Buffon makes a separate species of the *Bartavella*, or Greek partridge, Mr. Taylor offers that as the proper bird meant in these passages. Belon informs us, 'that the bartavella keeps ordinarily among rocks; but has the instinct to descend into the plain to make its nest, in order that the young may find, at their birth, a ready subsistence.' 'It has another analogy with the common hen, which is, to sit upon (or hatch) the eggs of strangers, for want of its own. This remark is of long standing, since it occurs in the sacred books.' Now, if, in the absence of the proper owner, this *Bartavella* partridge sits on the eggs of a stranger, when that stranger returns to her nest, and drives away the intruder before she can hatch them, the partridge so expelled resembles a man in low circumstances, who has possessed himself for a time of the property of another, but is forced to relinquish his acquisition before he can render it profitable; which is the simile of the prophet, and agrees, too, with this place.

## THE COCK AND HEN.

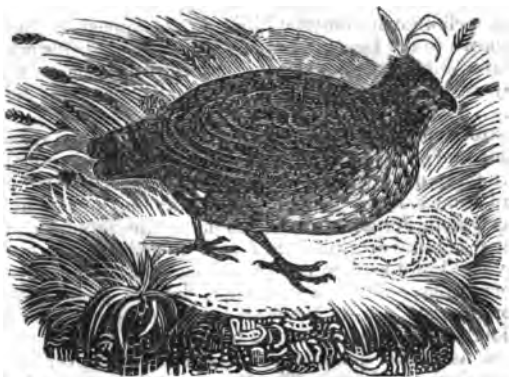
THESE well-known domestic birds do not appear to have been much known to the Israelites, at any period of their history ; since the Hebrew Bible does not so much as furnish a name for them, and they are only once mentioned in the writings of the New Testament.

The strong affection and tender care which the hen displays for her young, are so well known as to have become proverbial.

It is to these qualities in the character of the domestic hen, that our Lord alludes, in his pathetic address to the once 'holy city' — 'O Jerusalem, Jerusalem, thou that killest the prophets, and stonest them which are sent unto thee, how often would I have gathered thy children together, even as a hen gathereth her chickens under her wings, and ye would not ! Behold, your house is left unto you desolate,' a very beautiful image, denoting affection and protection. When the hen sees a bird of prey coming, she makes a noise to assemble her chickens, that she may cover them with her wings from the danger. The Roman *eagle* is about to fall upon the Jewish state ; nothing can prevent this but their conversion to God through Christ ; Jesus cries throughout the land, publishing the gospel of *reconciliation* ; they would not *assemble*, and the Roman *eagle* came and destroyed them. How long had these thankless and unholy people been the objects of his tenderest cares ! For more than two thousand years, they engrossed the most peculiar regards of the most beneficent Providence ; and during the three years of our Lord's public ministry, his preaching and miracles had but one object and aim, the instruction and salvation of this thoughtless people. For their sakes, he who was rich became poor, that they through his poverty, might be rich ; for their sakes he made himself of no reputation, and took upon him the form of a servant, and became obedient unto death, even the death of the cross ! He *died* that THEY might not *perish*, but have everlasting life. Thus, to save their life, he freely abandoned his own.



## THE QUAIL.



THERE has been a difference of opinion among learned men, with respect to what creature is intended by the Hebrew word which we render *quails*, Exodus xvi. 13, &c.

It would appear, however, that the quail is a bird of passage, and about the size of the turtle-dove. Hasselquist states that it is plentiful near the shores of the Dead Sea and the Jordan, and also in the deserts of Arabia.

On two occasions the demands of the murmuring Hebrews were supplied with quails; and, in each case, the event is distinctly referred to the miraculous interposition of God, Exodus xvi. 12, 13; Numbers xi. 31. On the former occasion, the birds were scattered about the camp only for a single day; but, on the latter, they came up from the sea for an entire month. The great numbers of them which are said to have been provided for the people, has been regarded as almost incredible, but without sufficient reason, as may be shown, without resorting to the supposition that they were created for this express occasion. Varro asserts, that turtles and quails return from their migrations into Italy in immense numbers; and Solinus adds, that when they come within sight of land, they rush forward in large bodies, and with so great impetuosity as often to endanger the safety of navigators, by alighting upon the sails in the night, and by their weight oversetting the vessels. Hence it appears, that this part of the narrative is perfectly credible; and that the miracle consisted in the immense flocks being directed to a particular spot, in the extreme emergency of the people, by means of 'a wind from the Lord,' Numbers xi. 31.

SECTION III.  
WATER BIRDS.

THE CRANE.



THIS bird is now unknown in England, and the accounts of its size which are furnished by naturalists and travellers vary exceedingly. Willoughby and Pennant make it from five to six feet long, from the beak to the tail; and others state that it is above five feet high. On the contrary, Bresson describes it as something less than the brown stork, about three feet high, and about four from the beak to the tail. The latter writer is generally admitted to be the most correct; although the one he describes may possibly have been a small bird. The figure of the crane is tall and slender, with a long neck, and long legs. It is very social in its habits, and usually lives in flocks amounting to fifty or sixty in number.

Cranes are birds of passage, and they are seen to depart and re-

turn regularly, at those seasons when their provision invites or repels them. They generally leave Europe at the latter end of Autumn, and return in the beginning of the summer. In the inland parts of the continent, they are seen crossing the country in flocks of fifty or a hundred, making from the northern regions towards the south. In these journeys they sometimes soar so high, however, as to be entirely out of sight; but then their tract is to be distinctly ascertained by their loud and peculiar clangor. To the instinctive precaution of these birds in securing themselves against the miseries of famine, by migrating from one part of the earth to another, there is a reference in Jer. viii. 7, where the blindness of the Jewish nation to the indications of approaching judgments is forcibly reproved: 'The crane and the swallow observe the time of their coming; but my people know not the judgment of the Lord.'

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### THE STORK.



THE external appearance of the stork differs little from that of the crane. It is of the same size; and has the same formation as to the bill, neck, legs, and body, except that it is something more corpulent. Its differences are but very slight; such as the color, which in the crane is ash and black, but in the stork is white and brown. The nails of the toes of the stork, also, are very peculiar, not being

clawed like those of other birds, but flat, like the nails of a man. Its true distinctions, however, are to be taken rather from its manner than its form. The crane has a loud piercing voice; the stork is silent, and produces no other noise than the clacking of its under chap against the upper: the crane has a strange convolution of the windpipe through the breast bone; the stork's is formed in the usual manner: the crane feeds mostly upon vegetables and grain; the stork preys entirely upon frogs, fishes, birds, and serpents: the crane avoids towns and populous places; the stork lives always in or near them: the crane lays but two eggs, and the stork generally four. These are distinctions fully sufficient to mark the species, notwithstanding the similitude of their form.

It was probably on account of the description of food upon which this bird preys, that it was prohibited as an article of food to the Jewish people, Lev. xi. 19, &c.

The Hebrew name of the stork, is strikingly characteristic of its disposition, signifying *benignity* or *affection*, for which it is remarkable, as is attested by the most unexceptionable witnesses.

Parkhurst has given an interesting description of the stork from the Inspector, a periodical paper ascribed to that eminent naturalist, Sir John Hill, which sets this feature in its character in a strong and beautiful light.

'The two parents feed and guard each brood; one always remaining on it, while the other goes for food. They keep the young ones much longer in the nest than any other bird; and after they have led them out of it by day, they bring them back at night; preserving it as their natural and proper home,

'When they first take out the young, they practise them to fly; and they lead them to the marshes, and to the hedge-sides, pointing them out the frogs, and serpents, and lizards, which are their proper food; and they will seek out toads, which they never eat, and take great pains to make the young distinguish them.' At the time of their return, after having visited some warmer climate during the winter months, this writer states, that 'it is not uncommon to see several of the old birds, which are tired and feeble with the long flight, supported at times on the back of the young; and the peasants speak of it as a certainty, that many of these are when they return to their home, laid carefully in the old nests, and fed and cherished by the young ones, which they reared with so much care during the spring before.'

To the protection which the stork affords her young, there is evidently an allusion in Job xxxix. 13: 'The wing of the ostrich is quivering or expanded: [but] is it the wing of the stork and its plumage?' That is, is it, like that, employed in protecting and providing for the creature's offspring? No; for 'she (the ostrich) depositeth her eggs in the earth, and warmeth them on the sand, and forgetteth that the foot may crush them, and that the wild beast of the field may break them.' This leads us to notice the as-

section of the Psalmist, that 'the fir trees are the house of the stork,' Ps. civ. 17.

Like the crane, the stork is a bird of passage; and to its periodical migration the prophet Jeremiah refers, ch. viii. 7. Shaw furnishes us with a proof of their surprising instinct in preparing for their journey, which is worthy of notice. 'It is observed of the storks, when they 'know their appointed time,' that, for about the space of a fortnight before they pass from one country to another, they constantly resort together, from all the circumjacent parts, in a certain plain; and there, forming themselves once every day into a *douwanne*, or council (according to the phrase of these Eastern nations,) are said to determine the exact time of their departure, and the place of their future abodes.'

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### THE PELICAN.



The Hebrew name of this curious bird is evidently taken from its manner of discharging the contents of its bag or pouch, for the purpose of satisfying its own hunger, or that of its young.

The Pelican is much larger than the swan, and something resembles it in shape and color. The principal difference, and that which distinguishes this bird from all others, is its enormous bill and extraordinary pouch. From the point of the bill to the opening of the mouth, there is a length of fifteen inches; and under the chap is a bag, reaching the entire length of the bill to the neck, and capable, it is said, of holding fifteen quarts of water. When empty, this pouch is not seen; but when filled, its great bulk and singular appearance may easily be conceived. The Pelican, says Labat, has strong wings, furnished with thick plumage of an ash color, as are the rest of the feathers over the whole body. Its eyes are very small when compared to the size of its head; there is a sadness in its countenance, and its whole air is melancholy; it is as dull and reluctant in its motions as the flamingo is sprightly and active. It is slow of flight; and when it rises to fly, performs it with difficulty and labor; nothing, as it would seem, but the spur of necessity, could make these birds change their situation, or induce them to ascend into the air: but they must either starve or fly. When they have raised themselves about thirty or forty feet above the surface of the sea, they turn their head with one eye downwards, and continue to fly in that posture. As soon as they perceive a fish sufficiently near the surface, they dart down upon it with the swiftness of an arrow, seize it with unerring certainty, and store it up in their pouch. They then rise again, though not without great labor, and continue hovering and fishing, with their head on one side as before.

In feeding its young, the pelican squeezes the food deposited in its bag into their mouths, by strongly compressing it upon its breast with the bill; an action, says Shaw, which might well give occasion to the received tradition and report, that the pelican, in feeding her young, pierced her own breast, and nourished them with her blood.

The writer of the hundred-and-second psalm alludes to the lonely situation of the pelican in the wilderness, as illustrative of the poignancy of his own grief, at witnessing the desolation of his country, and the prostration of her sacred altars.

## THE CORMORANT.

THIS bird, which was unclean to the Hebrews (Lev. xi. 17; Deut. xiv. 17) is about the size of a large Muscovy duck, and may be distinguished from all other birds of this kind, by its four toes being united together by membranes, and by the middle toe being toothed or notched, like a saw, to assist it in holding its fishy prey. Its head and neck are of a sooty blackness, and the body thick and heavy, more inclining in figure to that of the goose than the gull. The bill is straight, till near the end, where the upper chap bends into a hook.

But notwithstanding the seeming heaviness of its make, there are few birds more powerfully predacious than the cormorant. Formed with the grossest appetites, this unclean bird has the most rank and disagreeable smell, and is more fetid, even when in its most healthful state, than carrion. Its form, says an ingenious writer, is disagreeable; its voice is hoarse and croaking; and all its qualities obscene. No wonder, then, that Milton should make Satan personate this bird, when he sent him upon the basest purposes, to survey with pain the beauties of Paradise, and to sit devising death on the tree of life. It has been remarked, indeed, of our poet, that the making a water fowl perch on a tree, implied no great acquaintance with the history of nature. But, in vindication of Milton, it must be observed, that Aristotle expressly says, the cormorant is the only water fowl that sits on trees; so that our epic bard seems to have been as deeply versed in natural history as in criticism.

The cormorant is trained up in China, and other parts of the world, for the purpose of taking fish, after which it dives with great dexterity and perseverance.

## SECTION IV.

### DUBIOUS BIRDS.

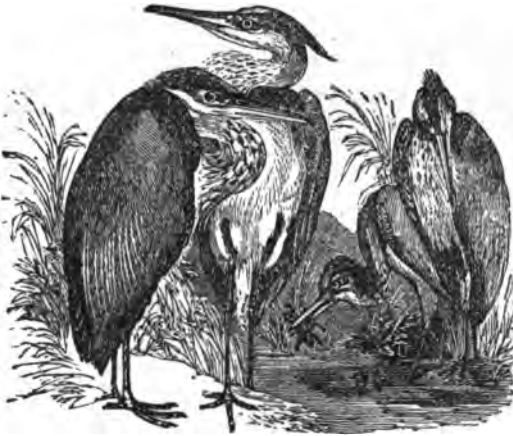
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#### THE CUCKOO.

WE believe that the bird called in Hebrew *shacheph*, and in our version 'cuckoo,' has never yet been properly identified. Bochart, and the versions generally, decide in favor of the sea-mew; but this can hardly be admitted, since the *shacheph* is placed by the Hebrew legislator, not among *water* birds, but among those of the air, and also among birds of prey, Levit. xi. 16. The latter circumstance seems also decisive against the bird which has been made to take its place in the English Bible. Dr. Shaw thinks that the bird intended is a granivorous and gregarious bird, of which he gives a particular account, and also an engraving.

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#### THE HERON.



A WIDE latitude has been taken in the rendering of the Hebrew *anaph*; some critics interpreting it of the crane, others of the cur-



*lew*, some of the kite, others of the woodcock, some of the peacock, some of the parrot, and some of the falcon. But let not the reader be alarmed at this diversity of rendering, since it is the necessary consequence of the scantiness of references to the bird in the sacred text, and the absence of all description of its character and qualities, in those passages in which it is spoken of. The truth is, that it is only referred to in the catalogue of birds prohibited by the Mosaic code, (Lev. xi. 19; Deut. xiv. 18;) and it is only from the import of its name, or the known character of the birds with which it is grouped, that we can form any conjecture of its specific character. That the creature intended is some species of water bird, there can be little doubt; if we give the sacred writer any credit for propriety in his grouping, or system in his arrangement; but what that species may be, we are unable to decide. The Hebrew name is from a root which signifies to *breathe short, or snort through the nostrils*, as in anger; and as the heron is said to be of a very irritable disposition, it may, perhaps, be the bird intended.

## THE SWAN.



It is extremely uncertain what bird is intended by the Hebrew, in (Lev. xi. 18), rendered by our translators, the swan. The same word is used in a subsequent verse to denote the *mole*, according to our version, but more probably, as Bochart has shown, the *chameleon*. The root from which the word is derived, signifies to *breathe*, *respire*, &c.; and Geddes remarks, that if etymology were to be our guide, it would seem to point to a well-known quality in the swan, that of being able to respire a long time, with its bill and neck entirely under water, and even plunged in the mud.







## CHAPTER IV.

### FISHES.

THERE are but few references to the subject of Ichthyology in the inspired writings. The reasons are obvious: the Jews being an agricultural people, fish formed no considerable part of their food; nor could they furnish any striking objects of comparison or illustration to the sacred writers, as in the case of quadrupeds and birds.

The well-known biblical appellations are two words expressive of their amazing fecundity: \* and the latter of their rapid motion. In Gen. i. 21, the word *taninim*, rendered in our English Bibles, 'great whales,' seems used to describe fish of the largest description, without being restricted to any particular species.

There seems to be four divisions of the aquatic tribes, strongly marked in nature, which are usually called the *spinous* or bony kind;—the *cartilaginous*, or those which have gristles instead of bones;—the *cetaceous* tribe, or those of the whale kind;—and the *crustaceous*, or shell fish.

Fish was the common food of the Egyptians. Hence we may see how distressing was the infliction which turned the waters of the river into blood, and occasioned the death of the fish, Exod. vii. 18—21. Their sacred stream became so polluted as to be unfit for drink, for bathing, and for other uses of water to which they were superstitiously devoted, (ch. ii. 5; vii. 15; viii. 20;) and themselves obliged to nauseate what was the usual food of the common people, and held sacred by the priests.

From Neh. xiii. 16, we learn, that in the time of Nehemiah, the Tyrians brought fish in considerable quantities to Jerusalem, for purchasing which on the Sabbath-day, that zealous patriot reprov'd the elders of the Jews. As the people of Tyre were remarkable for their skill in maritime affairs, it is impossible to say how far their fisheries might extend; but from Le Bruyn we ascertain, that fish in large numbers, and of excellent quality, were to be procured in the neighborhood of their own city. Nor should we omit to notice, in justification of John xxi. 11, that the sea of Tiberias was well stocked with fish of a very large size.

The narrative of Jonah's extraordinary preservation from death, when thrown overboard by the terrified mariners, has furnished

\* The Abbe Pluche shows, from Leuwenhoek, that a single cod, though not of the largest size, contained 9,334,000 eggs; and observes, that though a common carp is far from having such a number of eggs, yet the quantity of them is so amazing, even at the first glance, that it contributes very much to justify the above calculation.—*Nature Displayed*, vol. I. p. 230, 231.

ample materials for the cavils of the infidel, and for the speculations of the philosopher and the critic. In the sacred text, the particular fish which was rendered the preserver of the disobedient prophet, is not specified; although the Septuagint translators have inserted the whale, and the evangelists, in recording our Saviour's words relative to the event and its typical character, have used the same word. It by no means follows from this, however, that the writers of the gospels designed to give their sanction to this interpretation: the LXX being the version in common use among their countrymen, they quoted it without alteration, where its deviation from the original involved no serious consequences.

Although the whale is the largest of all known fish, its gullet is too small to permit the passage of a human body through it, and therefore we cannot, without the supposition of an additional miracle, admit this to be the fish intended.

Our Lord observes (Luke xi. 30) that 'Jonas was a sign to the Ninevites;' and it is remarkable that the event should have been so widely spread and attracted so much notice, that among the few fragments of antiquity remaining to us, this little history should receive from them larger confirmation than some others, of greater extent and magnitude. The heathen have preserved the fact, but applied it to Hercules,

## CHAPTER V.

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### REPTILES.

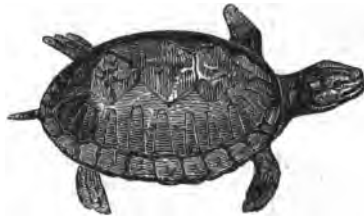
THIS numerous and diversified class of being is distinguished by two appellations in the sacred writings, (Gen. i. 24, 25; vii. 21;) the one being expressive of its motion, that is, crawling; and the other of its abundant production or increase. Reptiles of all sorts, except those furnished with wings, were unclean, Lev. xi. 41. We shall notice them under three divisions: LIZARDS—SERPENTS—WORMS.

#### SECTION I.

#### LIZARDS.

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#### THE TORTOISE.



DR. SHAW has shown, that the *tzab* or *tjab* of Lev. xi. 29, which we call the tortoise, is a lizard, called in Arabic, with a near approach to the Hebrew name, *dhab* or *dab*, agreeing nearly in shape, and in the hard pointed annule or scales of the tail, with the *candiverbera* or *shake-tail*, as it is represented in Gesner, and Johnson. 'The *dab*, or *Saharawan* lizard, is about eighteen inches long, and three or four inches broad across the back. It is not poisonous. It lays eggs like the tortoise. It is very swift, and, if hunted, will hide itself in the earth, which it penetrates with its nose, and nothing will extricate it but digging up the ground.'



## THE FERRET.

DR. GEDDES understands the Hebrew name, rendered ferret in Lev. xi. 30, to denote the *newt*, and Dr. James takes it for the *frog*; but, as its name seems to be taken from the cry it makes, the probability is, that the species of lizard called in Egypt, the *Gecko*, is the animal intended. It is thus described by Cope:—

‘Of all the oviparous quadrupeds whose history we are publishing, this is the first that contains a deadly poison. This deadly lizard, which deserves all our attention by his dangerous properties, has some resemblance to the chameleon; his head, almost triangular, is large in comparison to his body; the eyes are very large; the tongue flat, covered with small scales, and the end rounded; the teeth are sharp, and so strong that, according to Bontius, they are able to make impressions on the hardest substances, even on steel. It is almost entirely covered with little warts, more or less rising; the under part of the thighs is furnished with a row of tubercles, raised and grooved. The feet are remarkable for oval scales, more or less hollowed in the middle, as large as the under surface of the toes themselves, and regularly disposed one over another, like the slates on a roof. The tail of the gecko, is commonly rather longer than the body, though sometimes shorter; it is round, thin, and covered with circular rings or bands, formed of several rows of very small scales. Its color is a clear green, spotted with brilliant red. The name, *gecko*, imitates the cry of this animal, which is heard especially before rain. It is found in Egypt, India, Amboyna, &c. It inhabits by choice the crevices of half rotten trees, as well as humid places; it is sometimes met with in houses, where it occasions great alarm, and where every exertion is used to destroy it speedily. Bontius states, that its bite is so venomous, that if the part bitten be not cut away or burned, death ensues in a few hours.’

Mr. Charles Taylor thinks there is an allusion to this reptile in Deut. xxxii. 33: ‘Their wine is the poison of dragons; and the cruel venom of asps.’ The allusion here is to the venom (Eng. transl. *wine*) of the *taninim*; and this venom is associated, by comparison, with the *cruel venom of asps—pethenim—serpents*.

The following extract is from Bontius.

‘The Javanese use to dip their arrows in the blood of this creature; and those who deal in poison among them (an art much esteemed in the island of Java, by both sexes) hang it up with a string tied to the tail on the ceiling, by which means it being exasperated to the highest pitch, sends forth a yellow liquor out of its mouth, which they gather in small pots underneath, and afterwards coagulate into a body in the sun. This they continue several months together, by giving daily food to the creature. It is unquestionably the strongest poison in the world.’

## THE CHAMELEON.



IN the English Bible, the CHAMELEON is transformed into the mole, (Lev. xi. 30,) an animal that has little pretension to be associated with reptiles of the lizard species. The Hebrew word, from a root which signifies to *breathe*, is peculiarly appropriate to this curious animal, which, according to vulgar opinion, is the 'creature nourished by the wind and air.'

The chameleon nearly resembles the crocodile in form, but differs widely in its size and appetites. Its head is about two inches long, and from thence to the beginning of the tail four and a half; the tail is five inches long, and the feet two and a half; the thickness of the body varies at different times, for the animal possesses the power of blowing itself up and contracting itself, at pleasure.

During his visit to the East, Le Bruyn purchased several chameleons, for the purpose of preserving them alive, and making observations on their nature and manners; but the most interesting account of this curious animal is that furnished by the enterprising and lamented Belzoni, which we transcribe.

'There are three species of chameleons, whose colors are peculiar to themselves; for instance, the commonest sort are those which are generally green, that is to say, the body all green, and when content, beautifully marked on each side regularly on the green with black and yellow, not in a confused manner, but as if drawn. This kind is in great plenty, and never have any other color except a light green when they sleep, and when ill a very pale yellow. Out of near forty I had the first year when I was in Nubia, I had but one, and that a very small one, of the second sort, which had red marks. One chameleon lived with me eight months, and most of that time I had it fixed to the button of my coat: it used to rest on my shoulder, or on my head. I have observed, when I have kept it shut up in a room for some time, that, on bringing it out in the air, it would begin drawing the air in; and on putting it on some marjorum, it has had a wonderful effect on it immediately: its color became most brilliant. I believe it will puzzle a good many

to say what cause it proceeds from. If they did not change when shut up in a house, but only on taking them into a garden, it might be supposed the change of the colors was in consequence of the smell of the plants; but when in a house, if it is watched, it will [be seen to] change every ten minutes: some moments a plain green, at others all its beautiful colors will come out, and when in a passion it becomes of a deep black, and will swell itself up like a balloon; and, from being one of the most beautiful animals, it becomes one of the most ugly. It is true they are extremely fond of the fresh air; and on taking them to a window where there is nothing to be seen, it is easy to observe the pleasure they certainly take in it: they begin to gulp down the air, and their color becomes brighter. I think it proceeds, in a great degree, from the temper they are in: a little thing will put them in a bad humor. If, in crossing a talle, for instance, you stop them, and attempt to turn them another road, they will not stir, and are extremely obstinate: on opening the mouth at them, it will set them in a passion: they begin to arm themselves, by swelling and turning black, and will sometimes hiss a little, but not much. The third I brought from Jerusalem, was the most singular of all the chameleons I ever had: its temper, if it can be so called, was extremely sagacious and cunning. This one was not of the order of the green kind, but a disagreeable drab, and it never once varied in its color in two months. On my arrival at Cairo, I used to let it crawl about the room, on the furniture. Sometimes it would get down, if it could, and hide itself away from me, but in a place where it could see me; and sometimes, on my leaving the room and on entering it, would draw itself so thin as to make itself nearly on a level with whatever it might be on, so that I might not see it. It had often deceived me so. One day, having missed it for some time, I concluded it was hid about the room; after looking for it in vain, I thought it had got out of the room and made its escape. In the course of the evening, after the candle was lighted, I went to a basket that had got a handle across it: I saw my chameleon, but its color entirely changed, and different to any I ever had seen before: the whole body, head and tail, a brown, with black spots, and beautiful deep orange colored spots round the black. I certainly was much gratified. On being disturbed, its colors vanished, unlike the others; but after this I used to observe it the first thing in the morning, when it would have the same colors. Their chief food was flies: the fly does not die immediately on being swallowed, for, on taking the chameleon up in my hands, it was easy to feel the fly buzzing, chiefly on account of the air they draw in their inside: they swell much, and particularly when they want to fling themselves off a great height, by filling themselves up like a balloon. On falling, they get no hurt, except on the mouth, which they bruise a little, as that comes first to the ground. Sometimes they will not drink for three or four days, and when they begin, they are about half an hour drinking. I have held a glass in one hand, while the chame-

leon rested its two fore paws on the edge of it, the two hind ones resting on my other hand. It stood upright while drinking, holding its head up like a fowl. By flinging its tongue out of its mouth, the length of its body, and instantaneously catching the fly, it would go back like a spring. They will drink mutton broth.

'When in Italy, a gentleman, a professor of natural history, had two sent him from the coast of Barbary, but they did not live long. He dissected them, and his idea on the change of color is, that he found they had four skins extremely fine, which occasioned the different colors. It may be so, but of this I am positively certain, whatever it may proceed from, they have their different colors peculiar, distinct, and independent of each other, and of themselves.' He adds, in another place, that the chameleons are very inveterate towards their own kind, biting off each others tails and legs, if shut up in the same cage.

## THE FROG.

THE frog is in itself a very harmless animal, but to most people, who use it not as an article of food, exceedingly loathsome. Its employment by the Almighty in one of the plagues of Egypt, was characterized by the most striking wisdom. God, with equal ease, says Dr. Adam Clarke, could have brought crocodiles, bears, lions, or tigers, to have punished these people. But, had he used any of these formidable animals, the effect would have appeared so commensurate to the cause, that the hand of God might have been forgotten in the punishment; and the people would have been exasperated, without being humbled. In the present instance, he showed the greatness of his power, by making an animal, devoid of every evil quality, the means of a terrible affliction to his enemies. How easy is it, both to the justice and mercy of God, to destroy or save by means of the most despicable and insignificant of instruments! Though he is the Lord of Hosts, he has no need of powerful armies, the ministry of angels, or the thunderbolts of justice, to punish a sinner, or a sinful nation; the *frog* or the *fly*, in his hands, is a sufficient instrument of vengeance.

To the reason here assigned for the choice of so insignificant an animal, we may add another; namely, that as the frog was in Egypt an emblem of Osiris, or the Sun, the first object of idolatrous worship to the nations of the East, its employment on such an occasion was eminently adapted to convince them of the absurdity of their superstitious system.

These vengeful reptiles, says Paxton, were produced in the streams of the Nile, and in the lakes which were supplied from its

waters, because the river was supposed, by that deluded people, to possess an uncommon degree of sanctity, and to deserve their religious veneration ; it was the object of their confidence, it was accounted the grand source of their enjoyments, and was the constant theme of their praise ; it was, therefore, just to pollute those waters with an innumerable multitude of impure animals, to which the respect and confidence which was due only to the true God, the Father of the rain, had been impiously transferred. Turned at first into blood, as a just punishment of their unfeeling barbarity towards the male children of Israel, they were now 'a second time polluted and disgraced, to the utter confusion both of their gods and priests.'

The writer from whom we have cited these observations, has treated the entire subject in so admirable a manner, that we shall enrich our pages with some selections.

This loathsome plague extended to every place, and to every class of men. The frogs came up, and covered the land of Egypt ; they entered into their houses, and into their bed chambers ; they crawled upon their persons, upon their beds, and into their kitchen utensils. The whole country—their palaces, their temples, their persons—all was polluted and hateful. Nor was it in their power to wash away the nauseous filth with which they were tainted, for every stream and every lake was full of pollution. To a people who affected a most scrupulous purity in their persons, habitations, and manner of living, nothing, almost, can be conceived more insufferable than this plague. The frog is, compared with many other reptiles, a harmless animal ; it neither injures by its bite, nor by its poison, but it must have excited on this occasion, a disgust, which rendered life an insupportable burden. The eye was tortured with beholding the march of their impure legions, and the ear with hearing the harsh tones of their voices. The Egyptians could recline upon no bed where they were not compelled to admit their cold and filthy embrace : they tasted no food which was not infected by their touch ; and they smelled no perfume but the fetid smell of their slime, or the exhalations emitted from their dead carcasses.

How much the Egyptians endured from this visitation, is evident from the haste with which Pharaoh sent for Moses and Aaron, and begged the assistance of their prayers : 'Entreat the Lord that he may take away the frogs from me and from my people ; and I will let the people go, that they may do sacrifice unto the Lord.' Reduced to great extremity, and receiving no deliverance from the pretended miracles of his magicians, he had recourse to that God, concerning whom he had so proudly demanded, 'Who is Jehovah, that I should obey his voice to let Israel go ?' Subdued and instructed by adversity, he implores his compassion, and acknowledges the glory of his name ; but, as the event proved, not with a sincere heart.

In answer to his entreaties, the frogs were removed. They were

not, however, swept away like the locusts which succeeded them, but destroyed, and left on the face of the ground. They were not annihilated, nor resolved into mud, nor marched back into the river from whence they had come ; but left dead upon the ground, to prove the truth of the miracle,—that they had not died by the hands of men, but by the power of God ; that the great deliverance was not like the works of the magicians, a lying wonder, but a real interposition of Almighty power, and an effect of Divine goodness. The Egyptians were, therefore, reduced to the necessity of collecting them into heaps, which had the effect of more rapidly disengaging the offensive effluvia, and thus, for a time, increasing the wretchedness of the country. Their destruction was probably followed by a pestilence, which cut off many of the people, in addition to those that died in consequence of the grievous vexations they endured from their loathsome adversaries ; for, in one of the songs of Zion, it is said, ‘He sent frogs, which destroyed them’ (Ps. lxxviii. 45) ; laid waste their lands, and infected themselves with pestilential disorders.

The frog was chosen by the Spirit of inspiration, to represent in vision, the false teachers, and other agents of antichrist : ‘I saw,’ said John, ‘three unclean spirits, like frogs, come out of the mouth of the dragon, and out of the mouth of the beast, and out of the mouth of the false prophet. For they are the spirit of devils, working miracles,’ Rev. xvi. 13, 14. These impure and mischievous emissaries are generated and reared in the puddle of moral depravity ; like the frog, they disturb the peace, and impair the happiness of all around them. Their unceasing loquacity is not less annoying than the perpetual croaking of the impure animal to which they are compared. Their complaints and reproaches ; their accusations and curses ; their pride and vanity ; and their constant and eager exertions to stir up the subjects, kings, and princes of the earth to mutual slaughter, under the pretence of maintaining the cause of religion,—are still more painful and mischievous than the obstreperous clamors, the ‘mournful complaints and mutual reproaches, the shameless impudence and the vain-glorious inflations, which the frogs are accused of indulging, in their native marshes.

## SECTION II.

### SERPENTS.

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THE primitive meaning of the verb from which the Hebrew name of the serpent class of reptiles is derived, signifies *to view, observe attentively, &c.*, and so remarkable are they for this quality, that 'a serpent's eye' became a proverb among the Greeks and Romans, who applied it to those who *view* things *sharply* or *acutely*. An ingenious writer, speaking of the supposed fascination in the rattle-snake's eye, says, 'It is perhaps, more universal among the poisonous serpents than is supposed; for our common viper has it.'

The craft and subtilty of the serpent are noticed in scripture, as qualities by which it is distinguished above every other beast of the field, Genesis iii. 1.; Matthew x. 16. Of its prudence and cunning, many instances might be adduced, as recorded by naturalists; although it is reasonable to suppose, that in common with other parts of the creation, it has materially suffered in these respects from the effects of the curse.

Notwithstanding that the generality of mankind regard this formidable race with horror, there have been some nations who held them in veneration and regard. The adoration of the serpent in ancient Egypt is well known; as is that of the dragon in Babylon. The same species of idolatry still prevails throughout India, and in many parts of Africa it is carried to the most degrading excess.

Calmet has enumerated eleven kinds of serpents, which were known to the Hebrews;—1. APHEH, the *viper*. 2. CHEPHIA, a sort of *aspick*, or a *lion*. 3. ACSHUB, the *aspick*. 4. PETHEN, the *aspick*. 5. TZEBOA, a speckled serpent, called *Hyæna*, by the Greeks and Egyptians. 6. TZIMMAON, according to Jerom. 7. TZEPHO, or TZEPHONI, a *basilisk*; not the fabulous cockatrice, but a serpent like others. 8. KIPPOS, the *anconias* or *dart*. 9. SHEPHIPHON, the *cerastes*. 10. SHACHAL, the *black serpent*. 11. SERAPH, a *flying serpent*.

We shall notice such of these varieties as have been sufficiently identified.

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### THE VIPER.

THE viper is remarkable for its quick and penetrating poison, and on this account has been made, from the remotest antiquity, an emblem of what is hurtful and destructive. Nay, so terrible was their nature, that they were commonly thought to be sent as execution-

ers of Divine vengeance upon mankind, for enormous crimes which had escaped the course of justice. An instance of such an opinion as this, we have in the history of Paul (Acts xxviii.), whom the people of Melita, when they saw the viper leap upon his hand, concluded to be a murderer, and as readily made a god of him; when, instead of having his hand inflamed, or fallen down dead, he, without any harm, shook the reptile into the fire; it being obvious enough to imagine, that he must stand in a near relation, at least, to the gods themselves, who could thus command the messengers of their vengeance, and counterwork the effects of such powerful agents.

The prophet Isaiah mentions the viper among the venomous reptiles which, in extraordinary numbers, infested the land of Egypt, ch. xxx. 6. In illustrating the mischievous character of wicked men, and the ruinous nature of sin, he thus alludes to this dangerous creature again: 'They hatch cockatrice eggs, and weave the spider's web: he that eateth of their eggs dieth; and that which is crushed breaketh out into a viper.' The cockatrice here, says Paxton, undoubtedly means the viper; for the egg of one creature never produces, by any management, one of a different species. When the egg is crushed, the young viper is disengaged, and leaps out prepared for mischief. It may be objected, that the viper is not an oviparous, but a viviparous animal; and that, consequently, the prophet must refer to some other creature. But it is to be remembered, that although the viper brings forth its young alive, they are hatched from eggs perfectly formed in the belly of the mother. Hence, Pliny says of it, 'The viper alone of all terrestrial animals, produces within itself an egg of an uniform color, and soft like the eggs or roe of fishes.' This curious natural fact reconciles the statement of the sacred writer with the truth of natural history. If by any means the egg of the viper be separated from the body, the phenomenon which the prophet mentions, may certainly take place. Father Labat took a serpent of the viper kind, and ordered it to be opened in his presence. In its womb were found six eggs, each of the size of a goose's egg, and containing from thirteen to fifteen young ones, about six inches long, and as thick as a goose quill. They were no sooner liberated from their prison-house, than they crept about, and put themselves into a threatening posture, coiling themselves up, and biting the stick with which he was destroying them. Those contained in one of the eggs escaped at the place where the female was killed, by the bursting of the egg, and their getting among the bushes.

In Genesis xlix. 17, the dying patriarch compares the Danites to the *shephiphon*, probably the CERASTES; a serpent of the viper kind, of a light brown color, which lurks in the sand, and in the tracks of wheels in the road, and unexpectedly bites the legs of animals as they pass along.

To the depraved hearts and malignant dispositions of the Scribes and Pharisees, both our Saviour and John the Baptist allude, in



these words: 'O generation of vipers, who hath warned you to flee from the wrath to come?' (Matthew iii. 7); 'Ye serpents, ye generation of vipers, how can ye escape the damnation of hell?' ch. xxiii. 33.—Terribly expressive speeches! *A serpentine brood, from a serpentine stock.* As their fathers were, so were they, children of the *wicked* one. This is God's estimate of a **SINNER**, whether he wade in wealth, or soar in fame. The Jews were the seed of the serpent, who should bruise the heel of the woman's seed, and whose head should be bruised by him.

### THE ADDER AND THE ASP.

THE adder was known to the ancient Hebrews under various names.—It is the opinion of some interpreters, that the word *Shachal*, which in some parts of scripture denotes a lion, in others means an adder, or some kind of serpent. Thus, in the ninety-first Psalm, they render it the basilisk, 'Thou shalt tread upon the adder and the basilisk, the young lion and the dragon thou shalt trample under foot,' verse 13. Indeed, all the ancient expositors agree, that some species of serpent is meant; and as the term *Shachal*, when applied to beasts, denotes a black lion; so, in the present application, it is thought to mean the black adder.

The Hebrew *Pethen* is variously translated in our version; but interpreters generally consider it as referring to the asp. Zophar alludes to it more than once in his description of a wicked man: 'Yet his meat in his bowels is turned, it is the gall of asps within him.—He shall suck the poison of asps: the vipers' tongue shall slay him,' Job xx. 14. The venom of asps is the most subtle of all; it is incurable, and, if the wounded part be not instantly amputated, it speedily terminates the existence of the sufferer. To these circumstances Moses evidently alludes, in his character of the heathen: 'Their wine is the poison of dragons, and the cruel venom of asps,' Deut. xxxiii. 33. See also Rom. iii. 13. To tread upon the asp is attended with extreme danger; and to express in the strongest manner the safety which the godly man enjoys under the protection of his heavenly Father, it is promised, that he shall tread with impunity upon the adder and the dragon, Psalm xci. 13. No person of his own accord approaches the hole of these deadly reptiles; for he who gives them the smallest disturbance, is in extreme danger of paying the forfeit of his rashness with his life. Hence, the prophet Isaiah, predicting the conversion of the Gentiles to the faith of Christ, and the glorious reign of peace and truth in those regions, which, prior to that period, were full of horrid cruelty, declares, 'The sucking child shall play on the hole of the asp, and

the weaned child shall put his hand on the cockatrice den. They shall not hurt nor destroy in all my holy mountain; for the earth shall be full of the knowledge of the Lord, as the waters cover the sea,' Isaiah xi. 6—9. In the glowing descriptions of the Golden Age, with which the Oriental writers, and the rapturous bards of Greece and Rome, entertained their contemporaries, the wild beasts grow tame, serpents resign their poison, and noxious herbs their deleterious qualities: all is peace and harmony, plenty and happiness.

The soaring genius of these elegant writers, however, could reach no higher than a negative felicity: but the inspired bard, far surpassing them in the beauty and elegance, as well as in the variety of imagery, with which he clothes the same ideas, exhibits a glowing picture of positive and lasting happiness. The wolf and the leopard not only forbear to destroy the lamb and kid, but even take their abode with them, and lie down together. The calf, and the young lion, and the fating, not only come together, but also repose under the same covert, and are led quietly in the same band, and that by a little child. The cow and the she-bear, not only feed together, but even lodge their young ones, for whom they used to be most jealously fearful, in the same place. All the serpent kind is so perfectly harmless, that the sucking infant, or the newly-weaned child, puts his hand on the basilisk's den, and plays upon the hole of the aspic. The lion, not only abstains from preying on the weaker animals, but also becomes tame and domestic, and feeds on straw like the ox. These are all beautiful circumstances, not one of which has been touched by the ancient poets.

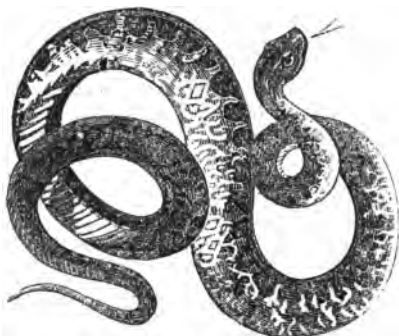
The wonderful effect which music produces on the serpent tribes, is confirmed by the testimony of several respectable moderns. Adders swell at the sound of a flute, raising themselves up on the one half of their body, turning themselves round, beating proper time, and following the instrument. Their head, naturally round and long like an eel, becomes broad and flat like a fan. The tame serpents, many of which the Orientals keep in their houses, are known to leave their holes in hot weather, at the sound of a musical instrument, and to run upon the performer. Dr. Shaw had an opportunity of seeing a number of serpents keep exact time with the Derivishes in their circulatory dances, running over their heads and arms, turning when they turned, and stopping when they stopped. The rattle-snake acknowledges the power of music as much as any of his family; of which the following instance is a decisive proof. When Chateaubriand was in Canada, a snake of this species entered their encampment; a young Canadian, one of the party, who could play on the flute, to divert his associates, advanced against the serpent with his new species of weapon. 'On the approach of his enemy, the haughty reptile curled himself into a spiral line, flattened his head, inflated his cheeks, contracted his lips, displayed his envenomed fangs, and his bloody throat; his double tongue glowed like two flames of fire; his eyes were burning coals; his body, swollen

with rage, rose and fell like the bellows of a forge ; his dilated skin assumed a dull and scaly appearance ; and his tail, which sounded the denunciation of death, vibrated with so great rapidity as to resemble a light vapor. The Canadian now began to play upon his flute ; the serpent started with surprise, and drew back his head. In proportion as he was struck with the magic effect, his eyes lost their fierceness, the oscillations of his tail became slower, and the sound which it emitted became weaker, and gradually died away. Less perpendicular upon their spiral line, the rings of the fascinated serpent were by degrees expanded, and sunk one after another upon the ground, in concentric circles. The shades of azure green, white, and gold, recovered their brilliancy on his quivering skin, and slightly turning his head, he remained motionless, in the attitude of attention and pleasure. At this moment, the Canadian advanced a few steps, producing with his flute sweet and simple notes. The reptile, inclining his variegated neck, opened a passage with his head through the high grass, and began to creep after the musician, stopping when he stopped, and beginning to follow him again, as soon as he moved forward.' In this manner he was led out of the camp, attended by a great number of spectators, both savages and Europeans, who could scarcely believe their eyes, when they beheld this wonderful effect of harmony. The assembly unanimously decreed, that the serpent which had so highly entertained them, should be permitted to escape.

But on some serpents, these charms seem to have no power ; and it appears from scripture, that the adder sometimes takes precautions to prevent the fascination which he sees preparing for him ; for the deaf adder shutteth her ear, and will not hear the voice of the most skilful charmer, Psalm lviii. 5, 6. The same allusion is involved in the words of Solomon : ' Surely the serpent will bite without enchantment, and a babler is no better,' Eccl. x. 11. The threatening of the prophet Jeremiah proceeds upon the same fact ; ' I will send serpents (cockatrices) among you, which will not be charmed, and they shall bite you,' Jer. viii. 17. In all these quotations, the sacred writers, while they take it for granted that many serpents are disarmed by charming, plainly admit that the powers of the charmer are in vain exerted upon others. To account for this exception it has been alleged, that in some serpents the sense of hearing is very imperfect, while the power of vision is exceedingly acute ; but the most intelligent natural historians maintain, that the reverse is true. The sense of hearing is much more acute than the sense of vision. Unable to resist the force of truth, others maintain, that the adder is deaf not by nature, but by design ; for the Psalmist says, she shutteth her ear, and will not hear the voice of the charmer. But the phrase, perhaps, means no more than this that some adders are of a temper so stubborn, that the various arts of the charmer make no impression ; they are like creatures destitute of hearing, or whose ears are so completely obstructed, that no sounds can enter. The same phrase is used in other parts of Scrip-

ture, to signify a hard and obdurate heart: 'Whoso stoppeth his ears at the cry of the poor, he also shall cry himself, but shall not be heard,' Prov. xxi. 13. It is used in the same sense of the righteous, by the prophet: 'That stoppeth his ears from the hearing of blood, and shutteth his eyes from seeing evil,' Isaiah xxxiii. 15. He remains as unmoved by the cruel and sanguinary counsels of the wicked, as if he had stopped his ears.

## THE COCKATRICE.



THE translators of the English Bible have variously rendered the Hebrew words *tzepho* and *tzephoni*, by adder and cockatrice; and we are by no means certain of the particular kind of serpent to which the original term is applied. In Isaiah xi. 8, 'the *tzephoni*,' says Dr. Harris, 'is evidently an advance in malignity beyond the *peten* which precedes it; and in ch. xiv. 29, it must mean a worse kind of serpent than the *nachash*; but this still leaves us ignorant of its specific character. Mr. Taylor, who has taken extraordinary pains to identify it, is of opinion that it is the *naja* or *Cobra di capello* of the Portuguese, which we find thus described by Goldsmith:—

'Of all others, the *Cobra di capello*, or hooded serpent, inflicts the most deadly and incurable wounds. Of this formidable creature there are five or six different kinds; but they are all equally dangerous, and their bite followed by speedy and certain death. It is from three to eight feet long, with two long fangs hanging out of the upper jaw. It has a broad neck, and a mark of dark brown on the forehead, which, when viewed frontwise, looks like a pair of

spectacles, but behind, like the head of a cat. The eyes are fierce and full of fire; the head is small, and the nose flat, though covered with very large scales, of a yellowish ash color; the skin is white, and the large tumor on the neck is flat, and covered with oblong smooth scales. The bite of this animal is said to be incurable, the patient dying in about an hour after the wound; the whole frame being dissolved into one putrid mass of corruption. The effects here attributed to the bite of this creature answer very well to what is intimated of the *tzeponi* in scripture. Thus, in Isaiah xi. 9: 'They [the *tzeponi* immediately preceding] shall not hurt nor destroy [corrupt] in all my holy mountain.' And Proverbs xxiii. 32: 'At the last it biteth like a serpent, and stingeth [spreads, diffuses its poison; So the LXX. and Vulgate,] like a cockatrice.'

We must not omit to notice the very powerful argument adduced in the last cited passage against the sin of immoderate drinking. Like the poison of the deadly cockatrice, it paralyses the energies both of mind and body, and speedily diffuses corruption throughout the entire frame. 'Who hath woe? who hath sorrow? who hath contentions? who hath babblings? who hath wounds without cause? who hath redness of eyes? They that tarry long at the wine: they that go to seek mixed wine.' 'Wine is a mocker, strong drink is raging; and whosoever is deceived thereby is not wise,' ch. xxiii. 29, 30; xx. 1.

The unyielding cruelty of the Chaldean armies, under Nebuchadnezzar, and the appointed ministers of Jehovah's vengeance on the Jewish nation, whose iniquities had made him their enemy, is expressively alluded to in the following passage: 'For, behold, I will send serpents, cockatrices, among you, which shall not be charmed, and they shall bite you, saith the Lord,' Jeremiah viii. 17.

In Egypt, and other Oriental countries, a serpent was the common symbol of a powerful monarch; it was embroidered on their robes, and blazoned on their diadem, to signify their absolute power and invincible might; and also, that, as the wound inflicted by the basilisk is incurable, so the fatal effects of their displeasure were neither to be avoided nor endured. These, says Paxton, are the allusions involved in the address of the prophet, to the irreconcilable enemies of his nation: 'Rejoice not thou, whole Palestina, because the rod of Him that smote thee is broken; for out of the serpent's roots shall come forth a cockatrice, and his fruit shall be a fiery flying serpent,' Isaiah xiv. 29. Uziah, the king of Judah, had subdued the Philistines; but, taking advantage of the weak reign of Ahab, they again invaded the kingdom of Judea, and reduced some cities in the southern part of the country under their dominion. On the death of Ahab, Isaiah delivers this prophecy, threatening them with a more severe chastisement from the hand of Hezekiah, the grandson of Josiah, by whose victorious arms they had been reduced to sue for peace, which he accomplished, when 'he smote the Philistines, even unto Gaza, and the borders thereof,' 2 Kings xviii. 8. Uziah, therefore, must be meant by the rod that smote

them, and by the serpent from whom should spring the fiery flying serpent, that is, Hezekiah, a much more terrible enemy than even Uzziah had been. But the symbol of regal power which the Oriental kings preferred to all others, was the basilisk.

All the other species of serpents are said to acknowledge the superiority of the basilisk, by flying from its presence, and hiding themselves in the dust. It is also supposed to live longer than any other serpent: the ancient heathens, therefore, pronounced it to be immortal, and placed it in the number of their deities; and because it had the dangerous power, in general belief, of killing with its pestiferous breath the strongest animals, it seemed to them invested with the power of life and death. It became, therefore, the favorite symbol of kings, and was employed by the prophet to symbolize the great and good Hezekiah, with strict propriety.

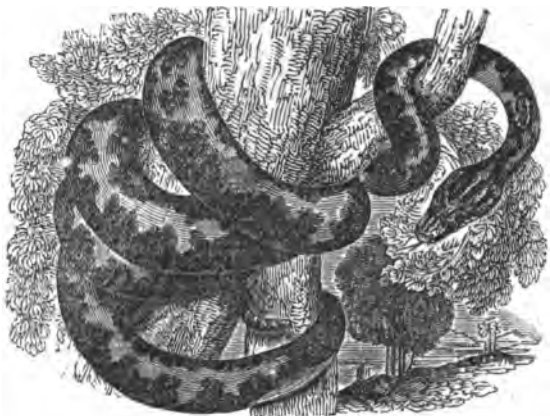
## THE SERAPH, OR FIERY SERPENT.

THIS species of serpent receives its name, *seraph*, from a root which signifies to burn, either from its vivid fiery color, or from the heat and burning pain occasioned by its bite. In Numb. xxi. 6, &c. we read that these venomous creatures were employed by God to chastise the unbelieving and rebellious Israelites, in consequence of which many of them died, the rest being saved from the effects of the calamitous visitation, through the appointed medium of the brazen *seraph*, which Moses was enjoined to raise upon a pole in the midst of the camp, and which was a striking type of the promised Saviour, John iii. 14, 15.

In Isa. xiv. 29, and ch. xxx. 6, the same word, with an additional epithet is used, and is translated in our Bible, 'fiery flying serpents;' and if we may rely upon the testimony of the ancients, a cloud of witnesses may be produced, who speak of these flying or winged serpents; although, as Parkhurst remarks, we do not find that any of them affirm they actually saw such *alive* and *flying*. Michaëlis, however, was so far influenced by these testimonies, that in his 83d question he recommends it to the travellers to inquire after the existence and nature of flying serpents. In conformity with these instructions, Niebuhr communicated the following information: 'There is at Bâsna, a sort of serpents which they call *Heie sursurie Heie thidre*. They commonly keep upon the date-trees; and, as it would be laborious for them to come down from a very high tree in order to ascend another, they twist themselves by the tail to a branch of the former, which making a spring by the motion they give it, throw themselves to the branches of the second. Hence it is that the modern Arabs call them flying serpents, *Heie*

*thidre*. I know not whether the ancient Arabs, of whom Mr. Michaëlis speaks in his 83d question, saw any other flying serpents.' Niebuhr refers also to Lord Anson's report of flying serpents in the island of Quibo. The passage is as follows: 'The Spaniards, too, informed us, that there was often found in the woods, a most mischievous serpent, called the flying snake, which, they said, darted itself from the boughs of trees on either man or beast that came within its reach, and whose sting they believed to be inevitable death. But professor Paxton has proposed an interpretation of the original phrase, which the text will equally bear. The verb *ouph*, he remarks, sometimes means to sparkle, to emit coruscations of light. In this sense the noun *thopah*, frequently occurs in the sacred volume. Thus, Zophar (Job xi. 17) says: 'The coruscation (*thopah*) shall be as the morning.' The word in the texts under consideration, may therefore refer to the ruddy color of that serpent, and express the sparkling of the blazing sunbeam upon its scales, which are extremely brilliant. It seems therefore probable, that the *seraph* was not the hydrus or chersydrus, as Bochart supposes, but of the præster or dipsas kind.

## THE DRAGON.



THIS word, which frequently occurs in the English Bible, generally answers to the Hebrew *Tan*, and *Tannin*, though these words are sometimes rendered *serpents*, *sea-monsters*, and *whales*. The Rev. James Hurd, in 'A Dissertation upon the true meaning of the word *tanninim*,' contends, that in its various it invariably signifies the *crocodile*; an opinion which cannot be supported by authentic facts, or a legitimate mode of reasoning. The learned editor of Calmet, who argues at great length for restraining the word to amphibious animals, is of opinion that it includes the class of lizards, from the *water-newt* to the *crocodile*, and also the *seal*, the *manati*, the *morse*, &c. His arguments are certainly ingenious and deserving of attention; but they have failed to convince us of the legitimacy of his deductions. The subject is involved in much obscurity, from the apparent latitude with which the word is employed by the sacred writers. In Exod. vii. 9, *et seq.*, Deut. xxxii. 33, and Jer. li. 34, it seems to denote a *large serpent*, or the *dragon*, properly so called; in Gen. i. 21, Job vii. 12, and Ezek. xxix. 3, a *crocodile*, or any *large sea animal*; and in Lam. iv. 3, and Job xxx. 29, some kind of wild beast, probably the jackal or wolf, as the Arabic *teenan* denotes. It is to the dragon, properly so called, that we shall now direct our attention.

Three kinds of dragons were formerly distinguished in India. 1. Those of the hills and mountains. 2. Those of the valleys and caves. 3. Those of the fens and marshes. The first is the largest, and covered with scales as resplendent as burnished gold. They



have a kind of beard hanging from their lower jaw ; their aspect is frightful, their cry loud and shrill, their crest bright yellow, and they have a protuberance on their heads, of the color of a burning coal. 2. Those of the flat country are of a silver color, and frequent rivers, to which the former never come. 3. Those of the marshes are black, slow, and have no crest. Their bite is not venomous, though the creatures are dreadful.

The following description of the Boa is chiefly abstracted and translated from DE LA CEFÈDE, by Mr. Taylor, who considers it to be the proper dragon.

The BOA is among serpents, what the lion or the elephant is among quadrupeds. He usually reaches twenty feet in length ; and to this species we must refer those described by travellers, as lengthened to forty or fifty feet, as related by Owen. Kircher mentions a serpent forty palms in length ; and such a serpent is referred to by Job Ludolph, as extant in Ethiopia. Jerom, in his life of Hilarion, denominates such a serpent, draco, a dragon ; saying, that they were called boas, because they could swallow (*boves*) beeves, and waste whole provinces. Bosman says, 'entire men have frequently been found in the gullets of serpents, on the gold coast ; but, the longest serpent I have read of, is that mentioned by Livy, and by Pliny, which opposed the Roman army under Regulus, at the river Bagrada, in Africa. It devoured several of the soldiers ; and so hard were its scales, that they resisted darts and spears : at length it was, as it were, besieged, and the military engines were employed against it, as against a fortified city. It was a hundred and twenty feet in length.'

At Batavia a serpent was taken which had swallowed an entire stag of a large size ; and one taken at Bunda had, in like manner, swallowed a negro woman. Leguat, in his travels, says, there are serpents fifty feet long in the island of Java. At Batavia they still keep the skin of one, which, though but twenty feet in length, is said to have swallowed a young maid whole. From this account of the Boa, Mr. Taylor thinks it probable that John had it in his mind, when he describes a persecuting power under the symbol of a great red dragon. The dragon of antiquity was a serpent of prodigious size, and its most conspicuous color was red ; and the apocalyptic dragon strikes vehemently with his tail ; in all which particulars it perfectly agrees with the boa.

'And there appeared another wonder in heaven ; and behold a great red dragon, having seven heads and ten horns, and seven crowns upon his heads. And his tail drew the third part of the stars of heaven, and did cast them to the earth,' Rev. xii. 3, 4 ; 15—17. The number of heads here given to this creature, are certainly allegorical ; as are also the ten horns, and the ten crowns which are attached to them. But in all these instances, says Paxton, it is presumed that the inspired writer alludes either to historical facts or natural appearances. It is well known, that there is a species of snake, called *amphisbena*, or double-headed, although

one of them is at the tail of the animal, and is only apparent. A kind of serpent, indeed, is so often found with *two heads growing from one neck*, that some have fancied it might form a species; but we have, as yet, no sufficient evidence to warrant such a conclusion. Admitting, however, that a serpent with two heads is an unnatural production, for this very reason it might be chosen by the Spirit of God, to be a prototype of the apocalyptic monster. The horns seem to refer to the cerastes or horned snake, the boa or proper dragon having no horn. But this enormous creature has a crest of bright yellow, and a protuberance on his head, in color like a burning coal, which naturally enough suggests the idea of a crown. The remaining particulars refer to facts in the history of the boa or other serpents. The great red dragon *stood* before the woman, ready to devour her child. When the boa meets his adversary, he *stands* upright on his tail, and attacks with dreadful rage, both man and beast. The tail of the great red dragon, 'drew the third part of the stars of heaven, and did cast them to the earth.' The boa frequently kills his victim with a stroke of his tail.

Stedman mentions an adventure in his 'Expedition to Surinam,' which furnishes a very clear and striking illustration of this part of our subject. It relates to one of these large serpents, which, though it certainly differs from the red dragon of Asia and Africa, combines several particulars connected with our purpose. He had not gone from his boat above twenty yards, through mud and water, when he discovered a snake rolled up under the fallen leaves and rubbish of the trees, and so well covered, that it was some time before he distinctly perceived the head of the monster, distant from him not above sixteen feet, moving its forked tongue, while its eyes, from their uncommon brightness, appeared to emit sparks of fire. He now fired; but missing the head, the ball went through the body, when the animal struck round, with such astonishing force, as to cut away all the underwood around him, with the facility of a scythe mowing grass, and by flouncing his tail, caused the mud and dirt to fly over his head to a considerable distance. He returned in a short time to the attack, and found the snake a little removed from his former station, but very quiet, with his head as before, lying out among the fallen leaves, rotten boughs, and old moss. He fired at him immediately; and now, being but slightly wounded, he sent out such a cloud of dust and dirt, as our author declares he never saw but in a whirlwind. At the third fire the snake was shot through the head. All the negroes present declared it to be but a young one, about half grown, although, on measuring, he found it twenty-two feet and some inches, and its thickness, about that of his black boy, who might be about twelve years old.

These circumstances account for the sweeping destruction which the tail of the apocalyptic dragon effected among the stars of heaven. The allegorical incident has its foundation in the nature and structure of the literal dragon. The only circumstance which still requires explanation, is the *flood of water* ejected by the dragon, after

he had failed in accomplishing the destruction of the woman and her seed. The venom of poisonous serpents is commonly ejected by a perforation in the fangs, or cheek teeth, in the act of biting. We learn, however, from several facts mentioned by Mr. Taylor, that serpents have the power of throwing out of their mouth a quantity of fluid of an injurious nature. The quantity cast out by the great red dragon, is in proportion to his immense size, and is called a flood or stream, which the earth, helping the woman, opened her mouth to receive. Gregory, the friend of Ludolph, says, in his History of Ethiopia, 'We have in our province, a sort of serpent as long as the arm. He is of a glowing red color, but somewhat brownish. This animal has an offensive breath, and ejects a poison so venomous and stinking, that a man or beast within the reach of it, is sure to perish quickly by it, unless immediate assistance be given. At Mouree, a great snake, being half under a heap of stones and half out, a man cut it in two, at the part which was out from among the stones; and as soon as the heap was removed, the reptile, turning, made up to the man, and *spit such venom into his face, as quite blinded him*, and so he continued some days, but at last recovered his sight.

The prophet Jeremiah alludes to the hideous voracity of the boa, where he predicts the destruction of Babylon, the cruel oppressor of his people. 'Nebuchadnezzar, the king of Babylon, hath swallowed me up; he has filled his belly with my delicacies,' ch. li. 34. The same writer, in his description of a severe famine, represents the wild ass, upon the summit of a rock, 'snuffing up the wind like dragons,' ch. xiv. 6. Nor do these terrible reptiles content themselves with catching the passing breeze; they are said to suck from the air the birds that fly above them, by the strength of their breathing. When the ancient Hebrews observed the dragons erect, and with expanded jaws fetching a deep inspiration, they interpreted the circumstance as if with their eyes lifted up to heaven they complained to their Maker of their miserable condition; that, hated by all creatures, and confined to the burning and sterile deserts, they dragged out a tedious and miserable existence.

The silent and barren wilderness is the chosen haunt of the dragon. It is on this account the prophets of Jehovah, in predicting the fall of populous cities, so frequently declare, 'They shall become the habitation of dragons;' by which they mean to threaten them with complete and perpetual desolation. The same allusion is involved in the complaint of the Psalmist: 'Thou hast broken us in the place of dragons:' or, as Aquila not improperly renders it, in the place which cannot be inhabited.

The word dragon is sometimes used in scripture to designate the devil (Rev. xii. *freq.*), probably on account of his great power, and vindictive cruelty; though not without reference to the circumstances attending the original defection of mankind.

## THE HORSELEACH.

THE import of the Hebrew word rendered *horseleach* in the LXX, the Vulgate, and the Targums, as well as in the English and other modern versions of scripture, is by no means well ascertained. 'The horseleach,' says Solomon, 'hath two daughters, crying, give, give,' Prov. xxx. 16. Bochart thinks the translators have mistaken the import of one word for that of another very similar, and that it should be translated *Destiny*, or the necessity of dying; to which the Rabbins gave two daughters, Eden or Paradise, and Hades or Hell; the first of which invites the good, the second calls for the wicked. And this interpretation is thought to be strengthened by ch. xxvii. 20; 'Hell and Destruction [Hades and the Grave] are never satisfied.' Paxton, on the other hand, contends that the common interpretation is in every respect entitled to the preference. Solomon, having in the preceding verses mentioned those that devoured the property of the poor, as the worst of all the generations he had specified, proceeds in the fifteenth verse, to state and illustrate the insatiable cupidity with which they prosecuted their schemes of rapine and plunder. As the horseleach hath two daughters, cruelty and thirst of blood, which cannot be satisfied; so, the oppressor of the poor has two dispositions, cruelty and avarice, which never say they have enough, but continually demand additional gratifications.

## THE SNAIL.



THIS creature appears in two passages of the English Bible, but improperly in Lev. xi. 30, where the Hebrew doubtless means a kind of lizard. The wise Author of nature having denied feet and claws to enable snails to creep and climb, has made them amends, in a way more commodious for their state of life, by the broad skin along each side of their belly, and the undulating motion observable there. By the latter they creep; by the former, assisted by the glutinous slime emitted from the body, they adhere firmly and securely to all kinds of superficies, partly by the tenacity of their

slime, and partly by the pressure of the atmosphere. Thus, says Paxton, the snail wastes herself by her own motion, every undulation leaving some of her moisture behind; and in the same manner the actions of wicked men prove their destruction. They may, like the snail, carry their defence along with them, and retire into it on every appearance of danger: they may confidently trust in their own resources, and banish far away the fear of evil; but the principles of ruin are at work within them, and although the progress may be slow, the result is certain. The holy Psalmist, guided by the Spirit of inspiration, prayed: 'As a snail which melteth, let every one of them pass away,' (Ps. lviii. 8); and Jehovah answered, 'The wicked shall be turned into hell, and all the nations that forget God.'

## SECTION III.

### WORMS.

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ANIMALS of the worm kind are placed, by scientific writers, as the first in the class of Zoophytes ; but as, like serpents, they have a creeping motion, so both, in general, go under the common appellation of reptiles. But though worms, as well as serpents, are mostly without feet, and have been doomed to creep along the earth on their bellies, yet their motions are very different. The serpent having a back-bone, which it is incapable of contracting, bends its body into the form of a bow, and then shoots forward from the tail ; but the worm has a power of lengthening or contracting itself at will. There is a spiral muscle, that runs round its whole body, from the head to the tail, somewhat resembling a wire wound round a walking-cane, which, when slipped off, and one end extended and held fast, will bring the other nearer to it. In this manner, the earth-worm, having shot out, or extended its body, takes hold by the slime of its fore-part, and so contracts and brings forward the hinder part, and in this manner moves onward. It is from the manner of its motion, as here described, that a worm is called in Hebrew, the *projector*.

There is no phenomenon in all natural history more astonishing than what is sometimes seen in creatures of the worm kind. Some of them will live without their limbs, and often are seen to reproduce them ; some continue to exist though cut in two, their nobler parts preserving life, while the others perish that were cut away. But the earth-worm, and all the Zoophyte tribe, continue to live in separate parts ; and one animal, by means of cutting, is divided into two distinct existences, sometimes into a thousand ! Spalanzani tried several experiments upon the earth-worm, many of which succeeded according to his expectation, although all did not retain the vivacious principle with the same degree of obstinacy. Some, when cut in two, were entirely destroyed ; others survived only in the nobler part ; and while the head was living, the tail entirely perished, and a new one was seen to burgeon from the extremity. But what was most surprising of all—in some, both extremities survived the operation : the head produced a tail with the anus, the intestines, the annular muscle, and the prickly beards ; the tail part, on the other hand, was seen to shoot forth the nobler organs, and, in less than the space of three months, a head, a heart, and all the apparatus and instruments of generation. This part, as may easily be supposed, was produced much more slowly than the former ; a

new head taking above three or four months for its completion, a new tail being shot forth in less than as many weeks. Thus, two animals, by dissection, were made out of one; each with their separate appetites: each endued with life and motion; and seemingly as perfect as that single animal from whence they derived their origin! This singular fact exhibits a striking proof of the comparative imperfection of their organs, and seems to justify the classifying them in the order of Zoophytes, a name which, as above remarked, implies vegetable nature endued with animal life.

For the purpose of exhibiting, in a striking light, the weakness and abjection of man, the sacred writers sometimes compare him to this mean reptile, Job xxv. 1; Psalm xxii. 6.

In Mark ix. 44, we read of the worm that dieth not, and the fire that is unquenchable; a passage which is evidently taken from Isaiah lxvi. 24, where the subject is the punishment to be inflicted on the incorrigible in this life, in order to describe, as is usual with the Jewish writers, the judgment of another world. Losing sight of this circumstance, some writers who have argued against the eternity of future punishments, have improperly and unwarrantably restricted the sense of the passage. The place of the damned is compared to a field where carcases are thrown out, and are gnawed by worms, or burnt with fire. Such was their Gehenna, or the Valley of Hinnom, near Jerusalem; odious by the former sacrifices to Moloch, and afterwards desecrated by Josiah, by being made a common burying place. Le Clerc and some others think there is an allusion to the two sorts of funeral rites, burning and burying. Hence, says bishop Lowth, the worms which preyed on the carcases, and the fire which consumed the victims.

## CHAPTER VI.

### INSECTS.

Of all the productions of nature, insects are by far the most numerous; and as they are endowed with the various powers of creeping, flying, and swimming, there is scarcely any place, however remote and secure, in which they are not to be found. They are placed by naturalists in the lowest rank of animated nature; and their conformation, their instincts, and their amazing numbers, are said to show the propriety of such a classification.

But in this numerous class of animated beings, where shall we find a single instance in which imperfection is made to appear? In all the prodigious variety that exists between the scorpion and the mite, we certainly behold in the structure of insects abundant evidence of the most exquisite skill; and if by means of the microscope we extend our researches downwards through that minute order of beings, till we arrive at those invisible animalcules which are computed to be twenty-seven millions of times smaller than a mite, the same evidences of wisdom and design present themselves in every gradation, and all ideas of imperfection cease.\*

It is not at all surprising, then, that such an accurate searcher into nature's works as the excellent Mr. Boyle, should observe 'that his wonder dwelt not so much on nature's clocks as on her watches.' In several kinds of insects, invisible before to mortal eye, it is not only easy to discover, by means of a good magnifier, the external appearance of their mouths, their horns, their trunks, and other members, but the very motion of their heart and lungs! Now, as these little animals are discovered to be organized bodies, how fine and subtle must be the several parts that compose them! How difficult to conceive the extreme minuteness of the muscles necessary to the motion of the heart, the glands for the secretion of the fluids, the stomach and bowels for the digestion of the food, the fineness of the tubes, nerves, arteries, veins; and above all, of the blood, the lymph, and animal spirits, which must be infinitely more so than any of these! Here the utmost stretch of imagination is brought to the test, without being able to form any adequate conception. But these inconceivable wonders, instead of conveying

\* The defects of art are easily discovered by the microscope; but the more narrowly we pry into or scrutinize the works of nature by this instrument, the more the perfection of the inimitable Artist is made to appear. Viewed by this glass, the finest needle ever polished, presents to the eye a blunt and ragged point; but the sting of a bee, however magnified, still retains all its acuteness of termination.



any idea of imperfection as to the skill of the Artist, must, from what they make to appear, inspire the attentive observer with very different emotions, and force him to exclaim,

'Thyself, how wond'rous thou!'

The beauty and symmetry of some of these minute objects, so viewed, are surprising indeed. What a metamorphosis do they seem to undergo under the magic-working glass! Creatures that before seemed small and despicable, now 'appear the pride of nature, wherein she has bestowed more nice and delicate art, and displayed more profusely the rich embroidery and elegant beauties and garniture of colors, than in any of the larger species of animals.' Even the dust that adheres to the butterfly's wing, and to which it owes the beautiful tints and variegated hues that adorn it, is said to be an innumerable collection of extremely small feathers, as perfect in the structure and symmetry of the arrangement, as they are beautiful in the coloring.

But this is not all. The very circumstances adduced as marks of imperfection in the insect tribes; viz. their being enabled to live for some time after being deprived of those organs necessary to life in the higher ranks, and their amazing numbers, ought rather to be considered as arguments to the contrary. The former is no doubt essentially necessary to the preservation of a species exposed to so many casualties as those in particular who live on blood, and cannot, therefore, partake of a meal, without giving their enemies notice of their presence; and the latter, to prevent the extinction of a short-lived race, which come into existence at a time when there are so many open mouths ready to devour them.

Without these two characteristic distinctions of the insect tribes, although they may be deemed imperfections by the more imperfect powers of short-sighted mortals, it is probable that, long ere now, some of those exquisite pieces of nature's workmanship must have disappeared from the creation, and, for want of those connecting links, the whole beautiful fabric of the universe must have fallen to decay. For, trifling as some of these minute or imperceptible objects may appear, the language of philosophy is—

'Each crawling insect holds a rank  
Important in the plan of Him who framed  
This scale of beings; holds a rank, which, lost,  
Would break the chain, and leave a gap  
That Nature's self would rue.'

Instead, therefore, of having the presumption to stigmatize, in the most remote degree, this particular order of the creatures of the Almighty, as affording evidences of imperfection, let us rather, from similar considerations, adopt the words of the more judicious Swammerdam: 'After an attentive examination,' says he, 'of the nature and anatomy of the smallest as well as the largest animals, I cannot help allowing the least, an equal or perhaps a superior degree of dignity. If, while we dissect with care the larger ani-

mals, we are filled with wonder at the elegant disposition of their parts, to what a height is our astonishment raised, when we discover all these parts arranged in the least, in the same regular manner !' And, to sum up the matter in the words of another naturalist : 'Of this dispute it is only necessary to observe, that the wisdom of the Creator is so conspicuous in all his works, and such surprising art is discovered in the mechanism of the body of every creature, that it is very difficult if not impossible, to say where it is most and where it is least to be observed.

We have already pointed out the Mosaic distinction between clean and unclean insects, to which the reader is referred.

## SECTION I.

### WINGLESS INSECTS.

#### THE SCORPION.



THE Scorpion is the largest and most malignant of all the insect tribes. From the above engraving, it will be seen that it somewhat resembles the lobster in its general appearance, but is much more hideous. Those found in Europe seldom exceed four inches in length, but in the tropical climates it is not an unusual thing to meet with them twelve inches long.

There are few animals more formidable, and none more irascible, than the scorpion; but, happily for mankind, it is equally destructive to its own species as to other animals. Goldsmith states, that Maupertius put about a hundred of them together in the same glass, and they scarcely came into contact, when they began to exert all their rage in mutual destruction; so that, in a few days, there remained but fourteen, which had killed and devoured all the rest. But their malignity is still more apparent in their cruelty to their offspring. He enclosed a female scorpion, big with young, in a glass vessel, and she was seen to devour them as fast as they were excluded. There was only one of the number that escaped the general destruction, by taking refuge on the back of its parent; and this soon after revenged the cause of its brethren, by killing the old one in its turn. Such is the terrible nature of this insect; and it is even asserted, that when placed in circumstances of danger, from which it perceives no way of escape, it will sting itself to death. Surely, says Mr. Taylor, Moses very properly mentions scorpions among the dangers of the wilderness, Deut. viii. 15. And what shall we think of the hazardous situation of Ezekiel, who is said to dwell among scorpions (ch. ii. 6)—people as irascible as this terri-

ble insect? Nor could our Lord select a fitter contrast: 'If a son shall ask of his father an egg, will he give him a scorpion?' Luke xi. 11, 12.

But the passage most descriptive of the scorpion, is Rev. ix. 3—10, in which it is to be observed, that the sting of this creature was not to produce death, but pain so intense that the wretched sufferers should seek death—desire to die—(ver. 6) rather than submit to its endurance. Dr. Shaw states, that the sting of scorpions is not always fatal; the malignity of their venom being in proportion to their size and complexion. The torment of a scorpion when he strikes a man, is thus described by Dioscorides: 'When the scorpion has stung, the place becomes inflamed and hardened; it reddens by tension, and is painful by intervals, being now chilly, now burning. The pain soon rises high, and rages, sometimes more, sometimes less. A sweating succeeds, attended by a shivering and trembling; the extremities of the body become cold; the groin swells; the bowels expel their wind; the hair stands on end; the members become pale, and the skin feels throughout it the sensation of a perpetual pricking, as if by needles.'

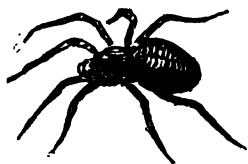
Our Saviour gave his disciples power to tread upon these terrible creatures, and to disarm them of their means of hurting, Luke x. 19.

It may be necessary to remark, on the contrast which our Lord draws between a scorpion and an egg, that the body of this insect is much like an egg: and Bochart has shown that the scorpions of Judea were about the size of an egg.

The Jews used whips on some occasions, which were called, from the suffering they occasioned, scorpions. To these it is probable the haughty Rehoboam alluded, when he menaced the house of Israel with increasing their oppressions, 1 Kings xii. 11.

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## THE SPIDER.



Thompson describes with great accuracy, the loathsome character of this well-known insect. Formed for a life of rapacity, and incapable of living upon any other than insect food, all its habits are calculated to deceive and surprise. It spreads toils to entangle its prey; it is endued with patience to expect its coming; and

is possessed of arms and strength to destroy it, when fallen into the snare.

In this country, where all the insect tribes are kept under by human industry, the spiders are but small and harmless; but in other parts of the globe they are formidable and dangerous. Burckhardt describes one which he saw killed near Mount Sinai, as being about four inches and a half in length, of which the body was three inches. It had five long legs on both sides, covered, like the body, with a sort of a light yellow color. The head was long and pointed, with large black eyes, and the mouth armed with two pairs of fangs, one above the other, recurved and extremely sharp. The Bedouins entertain the greatest dread of them; they say that their bite, if not always mortal, produces a great swelling, almost instant vomiting, and the most excruciating pains.

The spider is only twice mentioned in scripture; and in both instances the inspired writers allude to the conduct and lot of wicked men. The first passage in which it occurs, is Job viii. 14, 15, where the punishment of the hypocrite is denounced: 'Whose hope shall be cut off, and whose trust shall be a spider's web. He shall lean upon his house, but it shall not stand: he shall hold it fast, but it shall not endure.'—a proverbial allusion, says Mr. Good, and so exquisite, that it is impossible to conceive any figure that can more strongly describe the utter vanity of the hopes and prosperity of the wicked. This writer believes that the passage has never been understood; and therefore, though rendered in a thousand different manners, has never been translated satisfactorily. We subjoin his translation, and part of his note:

Can the paper-reed grow up without ooze?  
Can the bull-rush grow up without water?  
Yea, in the midst of its own greenness,  
Uncut, and before every other herb, doth it wither!  
Such are the ways of all that forget God!  
So perisheth the confidence of the hypocrite!  
Thus shall his support rot away,  
And the building of the spider be his reliance:  
And upon its building shall he lean, but it shall not stand;  
He shall grasp at it, but it shall not hold.

Ver. 11—15.

'The speaker is still continuing his comparisons, and the entire beauty of the passage depends upon our accompanying him in his extension of it. 'As the moisture of these stucculent plants evaporates before that of all others, so perisheth the confidence of the hypocrite; and as the ooze and stagnant water, from which they derive their support, instead of continuing its salubrious nourishment, grow putrid, and yield an intolerable stench, so shall the support of the hypocrite putrify likewise: it shall dissolve into emptiness, and nauseate him as it flies away.'

The other passage is Isaiah lix. 5, 6: 'They hatch cockatrice eggs, and weave the spider's web—their webs shall not become garments, neither shall they cover themselves with their works: their works are works of iniquity, and the act of violence is in their

bands.—The deceitful veil which he throws over the deformity of his character, can remain only for a short time; like the spider's web it shall soon be swept away, and his loathsome form exposed to every eye. He shall perish in the ruins of that habitation which he constructed with so much care, and where he reposed in fatal security.

Our translators have found the spider in Prov. xxx. 26; but the opinion of Bochart, that the *sewt*, a species of small lizard, is meant, is more likely correct.

## THE FLEA.

THIS contemptible and blood-thirsty little animal was well known in every part of the world, and was chosen by the persecuted son of Jesse, as an object of comparison for the purpose of reproving the folly of the incensed king of Israel, 1 Sam. xxiv. 14; ch. xxv. 20. The idea seems to be, that while it would cost Saul much to catch the object of his pursuit, his success would afford him but little advantage.

## THE LOUSE.

ONE of the plagues brought upon the land of Egypt, by Pharaoh's obstinate and iniquitous oppression of the children of Israel, was produced by a swarm of *cenim*, rendered 'lice' by Josephus, the Rabbins, and most modern commentators, in whose defence Bochart and Bryant have adduced many arguments, supported by considerable learning and ability. On the other hand, the LXX, who dwelt in Egypt, and who, it must be supposed, knew better than we can pretend to, what was intended by the Hebrew name, render it *gnats*; and their interpretation is confirmed Philo, himself also an Alexandrian Jew, and by Origen, a christian father, who likewise lived at Alexandria. The latter describes them as winged insects, but so small as to escape any but the acutest sight, and he adds, that when settled on the body, they wound it with a most sharp or painful piercer. Dr. Geddes, who maintains this opinion, remarks that Bochart and Bryant ought not to have so confidently appealed to the Syriac and Chaldee versions, as being in their favor; for the word they use, is without sufficient authority translated *pediculus*, in the Polyglott and by Buxtorf. From Bar Bahlul, the prince of Syriac lexicographers, we learn that the corresponding Syriac word denotes an animalcule hurtful to the eyebrows, *animalcula palpebræ*

*simica*. Nor is it to be doubted, that the Chaldee has the same meaning.

It will be remarked, says Mr. Taylor, that the miracles performed in Egypt, refer mostly, if not entirely, to the water and to the air. *Gnats* would be a mixture of both, as they originate in the water; and after citing several writers who speak of the torment occasioned by the sting of this insect, and of the great quantities in which they are found in Egypt, and some parts of the East, he concludes, by observing, 'The reader will judge from these representations whether the gnat does not bid fair to be the Hebrew *cenim*: being winged, it would spread over a district or country with equal ease as over a village or a city, and would be equally terrible to cattle as to men. It seems, also, to precede the *dog-fly* or *zimb*, with great propriety.

Isaiah li. 6 is rendered, in our version, 'they shall die *in like manner*;' a sense which destroys the force and beauty of the prophet's meaning. It may be better rendered, 'The earth shall wax old like a garment, and they that dwell therein shall die as a gnat.' Certainly the ephemeral life of any species of gnats would, as Geddes remarks, be a fitter image of the transitoriness of human life, than the very uncertain duration of the life of a louse: besides that, the figure would be less ignoble, and more congruous to the dignity of the subject.

## SECTION II.

### WINGED INSECTS.

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#### THE FLY.

ONE of the plagues sent upon the incorrigible Egyptians, consisted of a swarm of flies, Exodus viii. 21, 24. The original term employed, is *oreb*, which the LXX translate by the *dog-fly*; and they have been followed by the learned Bochart, and most modern interpreters. For a description of this insect, as found in Ethiopia, we are indebted exclusively to Mr. Bruce.

'This insect is call Zimb; it has not been described by any naturalist. It is, in size, very little larger than a bee, of a thicker proportion, and his wings, which are broader than those of a bee, placed separate like those of a fly; they are of pure gauze, without color or spot upon them. The head is large, the upper jaw or lip is sharp, and has at the end of it a strong pointed hair, of about a quarter of an inch long; the lower jaw has two of these pointed hairs; and this pencil of hairs, when joined together, makes a resistance to the finger, nearly equal to that of strong hog's bristles. Its legs are serrated in the inside, and the whole covered with brown hair or down. As soon as this plague appears, and their buzzing is heard, all the cattle forsake their food, and run wildly about the plain, till they die, worn out with fatigue, fright, and hunger. No remedy remains, but to leave the black earth, and hasten down to the sands of Atbara; and there they remain, while the rains last, this cruel enemy never daring to pursue them farther.

'Though his size be immense as his strength, and his body covered with a thick skin, defended with strong hair, yet even the camel is not capable to sustain the violent punctures the fly makes with his pointed proboscis. He must lose no time in removing to the sands of Atbara; for when once attacked by this fly, his body, head, and legs break out into large bosses, which swell, break, and putrify, to the certain destruction of the creature. Even the elephant and rhinoceros, who, by reason of their enormous bulk, and the vast quantity of food and water they daily need, cannot shift to desert and dry places, as the season may require, are obliged to roll themselves in mud and mire, which, when dry, coats them over like armor, and enables them to stand their ground against this winged assassin; yet I have found some of these tubercles upon almost every elephant and rhinoceros that I have seen, and attribute



them to this cause. All the inhabitants of the sea-coast of Melinda, down to Cape Gardesfan, to Saba, and the south coast to the Red Sea, are obliged to put themselves in motion, and remove to the next sand, in the beginning of the rainy season, to prevent all their stock of cattle from being destroyed. This is not a partial emigration; the inhabitants of all the countries, from the mountains of Abyssinia northward, to the confluence of the Nile, and Astaboras, are once a year obliged to change their abode, and seek protection on the sands of Beja; nor is there any alternative, or means of avoiding this, though a hostile band were in their way, capable of spoiling them of half their substance.

Of all those that have written upon these countries, the prophet Isaiah alone has given an account of this animal, and the manner of its operation, Isaiah vii. 18, 19: 'And it shall come to pass, in that day, that the Lord shall hiss for the fly that is in the uttermost part of the rivers of Egypt; and they shall come, and shall rest all of them in the desolate valleys, and in the holes of the rocks, and upon all thorns, and upon all bushes.'—That is, they shall cut off from the cattle their usual retreat to the desert, by taking possession of those places, and meeting them there, where ordinarily they never come, and which, therefore, were the refuge of the cattle.

We cannot read the history of the plagues which God brought upon Pharaoh by the hands of Moses, without stopping a moment to consider a singularity, a very principal one, which attended this plague of the fly, Exodus viii. 20, &c. It was not till this time, by means of this insect, that God said, he would separate his people from the Egyptians. And it would seem, that a law was given to them, that fixed the limits of their habitation. It is well known, as I have repeatedly said, that the land of Goshen or Gesheh, the possession of the Israelites, was a land of pasture, which was not tilled or sown, because it was not overflowed by the Nile. But the land overflowed by the Nile, was the black earth of the valley of Egypt, and it was here that God confined the flies; for, he says, it shall be a sign of this separation of the people, which he had then made, that not one fly should be seen in the sand, or pasture-ground, the land of Goshen; and this kind of soil has ever since been the refuge of all cattle, emigrating from the black earth, to the lower part of Atbara. Isaiah, indeed, says, that the fly shall be in all the desert places, and, consequently, the sands; yet this was a particular dispensation of Providence, to a special end, the desolation of Egypt, and was not a repeal of the general law, but a confirmation of it; it was an exception for a particular purpose, and a limited time.

I have already said so much on this subject, that it would be tiring my reader's patience, to repeat any thing concerning him; I shall, therefore, content myself by giving a very accurate design of him, only observing that, for distinctness sake, I have magnified him something above twice the natural size. He has no sting, though he seems to me to be rather of the bee kind; but his mo-

tion is more rapid and sudden than that of the bee, and resembles that of the gad-fly in England. There is something particular in the sound or buzzing of this insect. It is a jarring noise, together with a humming; which induces me to believe it proceeds, at least, in part, from a vibration made with the three hairs at his snout.

It is a well known fact, that the Egyptians paid a superstitious worship to several sorts of flies and insects; and this, as the learned Bryant has shown, gave a peculiar character to the judgment brought upon them by the plague of flies, since their punishment was inflicted by means of the very things they revered, and which none of the spells or charms of the magicians and priests could in any way propitiate.

Among the ridiculous idols worshipped by the ancient Canaanites, *Beel-zebub*, the god of flies, appears to have been one, as he had, during the times of the Old Testament history, a famous temple and oracle at Ekron, 2 Kings i. This name was afterwards used by the Jews to signify 'the prince of devils,' Matthew x. 24, &c.

In Hosea iv. 16, we read of Israel sliding back 'as a blacksliding heifer,' where the original signifies, properly, a cow which has been stung by a gad-fly, or other insect, and refers to those retreats of safety to which the animal betakes itself under such circumstances.

## THE HORNET.



THIS voracious and destructive insect was employed by Jehovah for the purpose of driving the enemies of Israel from the land of promise, Exod. xxiii. 38; Deut. vii. 20; Josh. xxiv. 12. Several commentators understand these passages metaphorically, as denoting the terror of the Lord, or some remarkable disease which he commissioned to lay waste the country before the armies of Israel; from a conception that an insect of this description was altogether inadequate to accomplish such a purpose. But we see no necessity to depart from the literal interpretation of the texts. The hornet, which belongs to the species *Crabro*, and is of the genus *vespa* or wasp, is a most voracious insect, and is exceedingly strong for its size, which is generally an inch long, though Dr. Clarke states he has seen some an inch and a half long, and so strong, that having caught one in a small pair of forceps, it repeatedly escaped by using violent contortions, so that at last he was obliged to abandon all hope of securing it alive, which he wished to have done. How distressing and destructive a multitude of these might be, says this eminent writer, any person may conjecture: even the bees of one hive would be sufficient to sting a thousand men to madness; but how much worse must wasps and hornets be! No armor, no weapons, could avail against these. A few thousands of them would be quite sufficient to throw the best disciplined army into confusion and rout.

But instances of whole nations being driven from their countries by insects of different kinds, is attested by many ancient authors; and what is particularly applicable here is, that according to Ælian, the Phasellians, a people descended from the Canaanites, and who dwelt about the mountains of Solyma, were driven out of their country by wasps,

## THE GNAT.

THIS insect is mentioned only in Matt. xxiii. 24, and Bochart has labored to prove that the Greek word means a kind of insect which is bred in the lees of wine, and that ever after lives on acids, avoiding sweets. It may be so, but several writers have stated, that in the East the gnats are extremely numerous, and are very apt to fall into wine, if it be not carefully covered. This may help us to understand the passage to which we have referred, where there is an evident opposition between the gnat which the hypocritical professors of purity are said to strain out, and the camel which they are said to swallow. See page 53.

## THE MOTH.

THIS insect is mentioned in several passages of Scripture, either as destroying by its ravages, or as affording a striking emblem of the fleetness and frailty of human life. The comparison of man, on account of his littleness and the shortness of his life, to a worm, or an insect, is common in the sacred writings; but in no other part of them, nor in any other writings whatsoever, is the metaphor so extensively applied, or so admirably supported, as in the Book of Job. Thus, in the address of Eliphaz to the venerable patriarch:—'What, then, are the dwellers in houses of clay, whose foundation is in the dust? They are crushed before the moth.' chap. iv. 19. To the same purpose the Psalmist expresses himself, when deprecating the judgments of God:—'Remove thy stroke away from me: I am consumed by the blow of thine hand. When thou with rebukes dost correct man for iniquity, thou makest his beauty to consume away like a moth: surely every man is vanity, Selah,' Ps. xxxix. 10, 11.

The idea in both these passages seems to be, that as the moth crumbles into dust under the slightest pressure, or the gentlest touch; so man dissolves with equal ease, and vanishes into darkness, under the finger of the Almighty.

How sublime is the sentiment, and how expressive the language, in the following passages: they need no comment:—

Behold, the Lord God will help me;  
Who is he that shall condemn me?  
Lo, they shall all wax old as a garment;  
The moth shall eat them up.—Isa. l. 9.

Fear ye not the reproach of men,  
 Neither be ye afraid of their revilings ;  
 For the moth shall eat them up like a garment,  
 And the worm shall eat them like wool.  
 But my righteousness shall be forever,  
 And my salvation from generation to generation.—*ch. li. 7, 8.*

In Job xxvii. 18, there is another reference to this insect, deserving of notice. Speaking of the oppressors of the poor, the afflicted patriarch says:—‘He buildeth his house like a moth, or like a shed which the watchman contriveth.’ That is, feeble in its structure and materials, short in its duration, and equally incapable of resisting a thunder-storm or a shower of rain. So, in chap. viii. 14:—‘Thus, shall his support rot away, and the BUILDING OF THE SPIDER be his reliance.’ The genus *phalæna*, or moth, is divided into plant-moths and cloth-moths; the latter have generally been supposed to be those immediately alluded to in this passage. This is doubtful, but the question is not of consequence; the house or building referred to is that provided by the insect in its larve or caterpillar state, as a temporary residence during its wonderful change, from a chrysalis to a winged or perfect insect. The slightness of this habitation is well known to every one who has attended to the curious operations of the silk-worm, or the tribes indigenous to the plants of our own country. Of these, some construct a solitary dwelling, while others are gregarious, vast numbers residing together under one common web, marshalled with the most exact regularity. The web of the cloth-moth is formed of the very substance of the cloth on which it reposes, devoured for this purpose, and afterwards worked into a tubular case, with open extremities, and generally approaching to the color of the cloth by which the worm is nourished.

Among the injunctions which our Saviour impressed on the minds of his disciples, in his inimitable sermon, in Matthew, chap. vi., we find one in which there is a reference to the insatiable voracity of the moth: ‘Lay not up for yourselves treasures upon earth, where moth and rust doth corrupt,’ &c. ver. 19, 20. The destruction which they very frequently occasion among woollen clothes, in our own country, is well known to almost every person, but in the East there are different species of this insect, and some of a kindred description, of whose ravages we can form but a very imperfect conception,

## THE BEE.



SHAKESPEARE, our great poet, has admirably described the laws and order of a community of these industrious, useful, and well known insects. To attempt even an outline of the natural history of the bee would occupy more space than can be devoted to this entire article; we must, therefore, refer the reader who is desirous of the information, to other works, and proceed to notice those passages of Scripture in which it is spoken of, and which require elucidation.

In Judges xiv. 8, we are informed that Samson on inspecting the carcass of a lion which he had some time previously killed, found that a swarm of bees had taken up their residence in it. We notice the circumstance, because it has been supposed to contradict the statement of Aristotle and other eminent naturalists, who affirm that bees will not alight upon a dead carcass, nor taste the flesh; that they will never sit down in an unclean place, nor upon any thing which emits an unpleasant smell. The variance between this statement and that of the sacred writer, is, however, only apparent. The frequently occurring phrase introduced into this text—'after a time,' shows that the circumstance referred to was long posterior to the death of the animal, whose body, from an exposure to beasts and birds of prey, and the violent heat of the sun, was reduced to a mere skeleton, and divested of all effluvia. That bees have swarmed in dry bones we have the testimony of Herodotus, of Seranus, and of Aldrovandus. Indeed, as bones in their nature, when dry, are exceedingly dry, there is no more to be said against such a place of residence than against the same among rocks and stones.

Some writers have contended that bees are destitute of the sense of hearing; but their opinion is entirely without foundation. This will appear, if any proof were necessary, from the following prediction: 'And it shall come to pass in that day, that the Lord shall hiss for the fly that is in the uttermost parts of the rivers of Egypt; and for the bee that is in the land of Assyria,' Isaiah vii. 18. The allusion which this text involves, is to the practice of calling out the bees from their hives by a hissing or whistling sound, to their labor in the fields, and summoning them again to return when the heavens begin to lower, or the shadows of evening to fall. In this manner, Jehovah threatens to arouse the enemies of Judah, and lead

them to the prey. However widely scattered, or far remote from the scene of action, they should hear his voice, and with as much promptitude as the bee, that has been taught to recognize the signal of its owner, and obey his call, they should assemble their forces; and although weak and insignificant as a swarm of bees in the estimation of a proud and infatuated people, they should come with irresistible might, and take possession of the rich and beautiful region that had been abandoned by its terrified inhabitants.

The allusion of Moses to the attack of the Amorites, which involves a reference to the irritable and revengeful disposition of the bee is both just and beautiful: 'And the Amorites which dwell in that mountain came out against you, and chased you as bees do, and destroyed you in Seir, even unto Horinah,' Deut. i. 44. Every person who has seen a swarm of disturbed bees, will easily conceive the fierce hostility and implacable fury of the enemies of Israel, which this expression is intended to denote. The same remarks will apply to Psalm xviii. 12, in which there is a similar allusion.

The surprising industry of the bee has, from the earliest times, furnished man with a delicious and useful article, in the honey which it produces.

This was very common in Palestine. In Exod. iii. 8, &c. the circumstance of its flowing with milk and honey is selected as a striking proof of its being the glory of all lands; and in Deut. xxxii. 13, and Ps. lxxxi. 16, the inhabitants are said to have sucked honey out of the rocks. With this agree 2 Sam. xiv. 25; Matt. iii. 4, &c. and the testimony of intelligent travellers. Hasselquist says, that between Aera and Nazareth, great numbers of wild bees breed, to the advantage of the inhabitants; and Maundrel observes, that when in the great plain near Jericho, he perceived in many places a smell of honey and wax, as strong as if he had been in an apiary.

It is reasonably supposed, however, that the honey mentioned in some of these passages was not the produce of bees, but a sweet syrup produced by the date-tree, which was common in Palestine, and which is known to have furnished an article of this description. There is also in some parts of the East, a kind of honey which collects upon the leaves of the trees, something like dew, and which is gathered by the inhabitants in considerable quantities. It is very sweet when fresh, but turns sour after being kept two days. The Arabs eat it with butter; they also put it into their gruel, and use it in rubbing their water skins, for the purpose of excluding the air. It is collected in the months of May and June; and some persons assured our traveller that the same substance was likewise produced by the thorny tree *Tereshresh* at the same time of the year.

Honey was prohibited as an offering on the altar, under the Levitical dispensation, (Lev. ii. 11,) but its first-fruits were to be presented for the support of the priests, ver. 12. Some writers have supposed that these first-fruits were of the honey of the date, but such an interpretation is forced and unnatural: the articles intended in verse 12, are obviously the same as those which are specified in the preceding verse.

Honey newly taken out of the comb has a peculiar delicacy of flavor, which will in vain be sought for, after it has been for any length of time expressed or clarified. This will help to explain the energy of expression adopted by the Psalmist, when speaking of the divine laws: 'More to be desired are they than gold, yea, than much fine gold; sweeter also than honey, and the droppings of honey-combs,' Ps. xix. 10.

A fine lesson on the necessity of moderation is taught by Solomon, Prov. xxv. 16: 'Hast thou found honey? eat so much as is sufficient for thee, lest thou be filled therewith and vomit it.' Upon this passage, Harris has cited the following observations of Dr. Knox: 'Man, indeed, may be called a bee in a figurative style. In search of sweets, he roams in various regions, and ransacks every inviting flower. Whatever displays a beautiful appearance solicits his notice, and conciliates his favor, if not his affection. He is often deceived by the vivid color and attractive form, which instead of supplying honey, produce the rankest poison; but he perseveres in his researches, and if he is often disappointed, he is also often successful. The misfortune is, that when he has found honey, he enters upon the feast with an appetite so voracious that he usually destroys his own delight by excess and satiety.'

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## THE ANT,



THE ant has been famous, from all antiquity, for its social and industrious habits, and for its spirit of subordination. It is as a pattern of parsimony to the profuse; and of unremitting diligence to the sluggish, Prov. vi. 6.

In Prov. xxx. 25, the ant is spoken of as one of the four diminutive things upon earth, which are exceeding wise: 'The ants are a people not strong, yet they prepare their meat in the summer;' an expression usually understood of their laying up stores of provision in summer against approaching winter; an opinion generally entertained by the ancients, though modern naturalists question the fact. Till the manners of exotic ants are more accurately explored, however, it would be rash to affirm that no ants have magazines of



provisions; for, although, during the cold of our winters in this country, they remain, for the most part, in a state of torpidity, and have no need of food, yet in warmer regions, during the rainy seasons, when they are probably confined to their nests, a store of provision may be necessary for them. Even in northern climates, against wet seasons, they may provide in this way for their sustenance and that of their young brood, which, as Mr. Smeatham observes, are very voracious, and cannot bear to be long deprived of their food; else why do ants carry worms, living insects, and many other such things into their nests?

Solomon's lesson to the sluggard has generally been adduced as a strong confirmation of the ancient opinion; it can, however, only relate to the species of a warm climate, the habits of which are probably different from those of a cold one; so that his words, as commonly interpreted, may be perfectly correct and consistent with nature, and yet be not at all applicable to the species of ant indigenous to Europe. But if Solomon's remarks are properly considered, it will be found that this interpretation has been fathered upon them, rather than fairly deduced from them. He does not affirm that the ant, which he proposes to his sluggard as an example, laid up in her magazine stores of grain; but that with considerable prudence and foresight, she makes use of the proper season to collect a supply of provision sufficient for her purposes. There is not a word in them implying that she stores up grain or other provision. She prepares her bread, and gathers her food, namely, such food as is suited to her, in summer and harvest—that is, when it is most plentiful; and thus shows her wisdom and prudence by using the advantages offered to her. The words, thus interpreted, which they may be without any violence, will apply to the species among us as well as to those that are not indigenous.

In several parts of the east there is a species of this insect which is extremely destructive to almost every kind of property, and which may perhaps help to illustrate Matt. vi. 18, 19, although the insect there spoken of, is belonging to another genus. We quote the following from Forbes' 'Oriental Memoirs.'

'The termites, or white ants of Bombay, are so numerous and destructive at Anjengo, that it is difficult to guard against their depredations: in a few hours they will demolish a large chest of books, papers, silk, or clothes, perforating them with a thousand holes. We dare not leave a box on the floor without placing it on glass bottles, which, if kept free from dust, they cannot ascend. But this is trifling when compared with the serious mischief they sometimes occasion, by penetrating the beams of a house, or destroying the timbers in a ship. These destructive animals advance by myriads to their work, under an arched incrustation of fine sand, tempered with a moisture from their body, which renders the covert way as hard as burnt clay, and effectually conceals them while at their insidious employment.

'I could mention many curious instances of depredation by the

termites : one happened to myself. I left Anjengo in the rainy season, to pass a few weeks with the chief, at his country house at Eddova, in a rural and sheltered situation : on my departure I locked up a room, containing books, drawings, and a few valuables : as I took the key with me the servant could not enter to clean the furniture : the walls of the room were white-washed, adorned with prints and drawings, in English frames and glasses ; returning home in the evening, and taking a cursory view of my cottage by candle-light, I found every thing apparently in the same order as I left it ; but on a nearer inspection the next morning, I observed a number of advanced works, in various directions, towards my pictures ; the glasses appeared to be uncommonly dull, and the frames covered with dust : on attempting to wipe it off, I was astonished to find the glasses fixed to the wall, not suspended in frames as I left them, but completely surrounded by an incrustation cemented by the white-ants, who had actually eaten up the deal frames and back boards, and the greater part of the paper, and left the glasses upheld by the incrustations, or covered way, which they had formed during their depredation. From the flat Dutch bottles, on which the drawers and boxes were placed, not having been wiped during my absence, the ants had ascended the bottles by means of the dust, eaten through the bottom of a chest, and made some progress in perforating the books and linen. The chief's lady, with whom I had been staying at Eddova, on returning to her apartments in the fort, found, from the same cause, a large chest, in which she had deposited shawls, muslins, and other articles, collected preparatory to her leaving India, entirely destroyed by these voracious insects.

## THE LOCUST.



THIS is certainly the most terrible and destructive insect with which we are acquainted, and the immense numbers in which they collect when undertaking a predatory expedition, often renders it impossible to put a stop to their ravages, which in such cases terminate in the most complete desolation.

The locust, of which there are many species, has several names in the Hebrew Scriptures, each of which is characteristic of some feature in its nature or manners.

The great brown locust, which is the one with which we are best acquainted, is about three inches in length, has two horns or feelers about an inch long, and two pair of wings: the back is protected by a shield of a greenish color; and its general form much resembles that of a common grasshopper.

On several occasions these formidable creatures have been used as a scourge in the hand of the incensed Majesty of heaven for chastising a guilty world. Among the plagues which the perverse and impious conduct of the haughty Pharaoh brought upon his country, was a swarm of locusts, which 'covered the face of the whole land, so that the earth was darkened; and they devoured every green herb of the earth, and the fruit of every tree which the hail had left. Nothing green remained either on the trees or on the herbs of the earth, throughout the whole land of Egypt.' *Exod. x. 15.* A similar calamity happened to the Africans in the time of the Romans, and about one hundred and twenty-three years before Christ. An immense number of locusts covered the whole country, consumed every plant and blade of grass in the fields, without sparing the roots and the leaves of the trees, with the tendrils upon which they grew. These being exhausted, they penetrated with their teeth the bark, however bitter, and even corroded the dry and solid timber. After they had accomplished this terrible destruction, a sudden blast of wind dispersed them into different portions, and after tossing them awhile in the air, plunged their innumerable hosts into the sea. But the deadly scourge was not then at an end; the raging billows threw up enormous heaps of

their dead and corrupted bodies, upon that long extended coast, which produced a most insupportable and poisonous stench. This soon brought on a pestilence, which affected every species of animals; so that birds, and sheep, and cattle, and even the wild beasts of the field, perished in great numbers; and their carcasses, being soon rendered putrid by the foulness of the air, added greatly to the general corruption. The destruction of the human species was horrible; in Numidia, where at that time Micipsa was king, eighty thousand persons died; and in that part of the sea coast which bordered upon the region of Carthage and Utica, two hundred thousand are said to have been carried off by this pestilence.

The immense number in which locusts migrate, is spoken of by several travellers of respectability. Mr. Brown, in his travels in Africa, says, 'An area of nearly two thousand square miles might be said to be literally covered by them.' Mr. Forbes states, that when at Barodha, in India, where the locust is not near so pernicious as in Africa and Arabia, he saw a flight of them extending above a mile in length, and half as much in breadth; they appeared, as the sun was in the meridian, like a black cloud at a distance. As they approached from the east, the density of the host obscured the solar rays, cast an awful gloom, like that of an eclipse, over the garden where he was, and caused a noise like a rushing of a torrent. They were near an hour in passing over the spot. In Kirby and Spence's Entomology it is said, that one of the swarms which entered Transylvania, in August, 1748, was several hundred fathoms in width (at Vienna the breadth of one of them was three miles), and extended to so great a length as to be four hours in passing over the Red Tower; and such was its density that it totally intercepted the solar light, so that when they flew low, one person could not see another at the distance of twenty paces.

These extracts, which might be greatly multiplied, will show the propriety of the Scripture references to the numerical strength of the locust armies. See Judg. vi. 5; vii. 12; Psalm cv. 34; Jer. xlv. 23; Nah. iii. 15, &c.; for although our translation has 'grass-hopper' in some of these passages, the locust is no doubt the creature intended by the original.

But the most particular description of the locust in the sacred writings, is that in Joel ii. 3—10. 'A fire devoureth before them; and behind them a flame burneth: the land is as the garden of Eden before them, and behind them a desolate wilderness; yea, nothing shall escape them, &c.'

This is, perhaps, one of the most striking and animated pictures to be found in the whole compass of prophecy. The contexture of the passage is extremely curious; and the double destruction to be produced by locusts, and the enemies of which they were the harbingers, is painted with the most expressive force, and described with the most terrible accuracy. We may fancy the destroying army moving before us while we read, and the desolation spreading while we turn over the pages.

Many writers mention the resemblance which the head of the locust bears to that of the horse; whence the Italians call them *cavalette*. But the prophet does not appear to be describing the *shape* of the insect, when he compares it to a horse, but rather its properties, its fierceness, and its swift motion. Thus, in Rev. ix. 7, the locusts are compared to horses prepared for the battle; furious and impatient for the war.

The noise of their coming shall be heard at a distance, like the sound of chariots passing over the mountains. When they fall on the ground and leap from place to place, and devour the fruits, the sound of them will resemble the crackling of the stubble when consuming by the flames; or the din and clamor of an army ready prepared to engage in battle.

How this description agrees to the locusts, is shown abundantly by Bochart, who tells us, from several authors, that they fly with a great noise; as John has also described them, 'The sound of their wings was as the sound of chariots, of many horses running to battle,' (Rev. ix. 9.); that they may be heard at six miles distance; and that when they are eating the fruits of the earth, the sound is like that of a flame driven by the wind.

The prophet adds—

Before them the earth quaketh, the heavens tremble;  
The sun and the moon are darkened,  
And the stars withdraw their shining.

Dr. Shaw, by whose excellent zoological remarks so many passages in the sacred writings have been elucidated, has shown, from the testimony of his own observation, that these poetical expressions are scarcely hyperbolical with respect to this formidable insect. And Pliny, the Roman naturalist, gives a description of its migratory swarms almost equally sublime with that of the eastern poet. 'This plague,' says he, 'is considered as a manifestation of the wrath of the gods. For they appear of an unusual size; and fly with such a noise, from the motion of their wings, that they might be taken for birds. They darken the sun. And the nations view them in anxious suspense; each apprehensive lest their own lands should be overspread by them. For their strength is unfailing; and, as if it were a small thing to have crossed oceans, they pervade immense tracts of land, and cover the harvests with a dreadful cloud; their very touch destroying many of the fruits of the earth, but their bite utterly consuming all its products, and even the houses.'

The account which Volney gives of these insects, and of their devastations, is a wonderful illustration of this passage of the prophet. 'Syria, as well as Egypt, Persia, and almost all the South of Asia, is subject to a calamity no less dreadful than that of the volcanoes and earthquakes I have mentioned: I mean those clouds of locusts so often mentioned by travellers. The quantity of these insects is incredible to all who have not themselves witnessed their astonishing numbers: the whole earth is covered with them, for the

space of several leagues. The noise they make in browsing on the trees and herbage, may be heard at a great distance, and resembles that of an army in secret. The Tartars themselves are a less destructive enemy than these little animals. One would imagine that fire had followed their progress. Wherever their myriads spread, the verdure of the country disappears; trees and plants stripped of their leaves, and reduced to their naked boughs and stems, cause the dreary image of winter to succeed in an instant to the rich scenery of the spring. When these clouds of locusts take their flight, to surmount any obstacles, or to traverse more rapidly a desert soil, the heavens may literally be said to be obscured with them. Happily this calamity is not frequently repeated, for it is the inevitable forerunner of famine, and the maladies it occasions.

The locust is employed in the Book of Revelation, to symbolize the countless and savage hordes that fought under the banners of the Saracen princes: 'And there came out of the smoke locusts upon the earth, and unto them was given power, as the scorpions of the earth have power,—and their torment was as the torment of a scorpion, when he striketh a man;—and the shapes of the locusts were like unto horses prepared unto battle; and on their heads were, as it were, crowns of gold, and their faces were as the faces of men. And they had hair as the hair of women: and their teeth were as the teeth of lions. And they had breast-plates, as it were breast-plates of iron, and the sound of their wings was as the sound of chariots of many horses running to battle. And they had tails like scorpions, and there were stings in their tails,—and they had a king over them,' Rev. ix. 1—12. This remarkable comparison, says Paxton, is almost, in every particular, quite familiar to the Arabs. Niebuhr, in his description of Arabia, informs us, that an Arab of the desert near Bassorah, mentioned to him a singular comparison of the locust with other animals. The terrible locust of this passage not then occurring to him, he regarded the comparison as a jest of the Arab, and paid no attention to it, till it was repeated by another from Bagdad. He compared the head of the locust to that of the horse; its breast to that of the lion; its feet to those of the camel; its body to that of the serpent; its tail to that of the scorpion; its horns to the locks of hair of a virgin; and so of the other parts.

We have already remarked, that almost all writers on natural history notice that the head of a locust bears a striking resemblance to that of a horse. The Greeks called it the horse of the earth. Accounted for war, and mounted by a stern and bearded warrior, the Arabian charger has a majestic and terrible appearance: not less dreadful to the inhabitants of the east is the locust, in all the vigor of youth, ready to commence his destructive march. The Saracen furnished his horse with a silver bridle, and gilt trappings, and covered his neck and breast with plates of iron: it is, therefore, not improbable, that he adorned his head with some ornament resembling a crown, to which the horns or antennæ of the locust may not

improperly be compared. The neck of this formidable insect is also defended by a hard scaly substance, in the same manner as the neck of the Arabian war-horse was defended by plates of iron. The Arabian horse is carefully taught to recognise his enemy in the field of battle, which he no sooner does, than he rushes upon him with the utmost violence, and attempts to tear him in pieces with his teeth. The teeth of the locust are very sharp and strong. With what astonishing rapidity this insect devours every green thing, and scatters desolation over the fairest regions of the earth, has already been described; from whence it appears, that the comparison of the Saracen horse to the locust, is by no means inapplicable. Nor is the sound of their wings less remarkable; the inspired writer says, 'The sound of their wings was as the sound of chariots of many horses running to battle;' and travellers have stated, that 'the passage of the locust over their heads was like the noise of a great cataract.'

A great deal has been written on the nature of the food adopted by John the Baptist, one article of which is stated to have been 'locusts,' Matt. iii. 4. The dispute has been as to whether these were the insects so called, or the fruit of a certain tree designated by the same name. That locusts properly so called were allowed to the Jews as an article of food, is certain from Lev. xi. 22; and that they are actually used for this purpose in many parts of the East, we have the testimony of several unexceptionable writers. But notwithstanding this, we are of opinion that the insect, which required curing and cooking, and which is deemed by the Arabs a great delicacy, formed no part of the plain and simple, and as it would appear both from the testimony of scripture, and from the customs of the pseudo disciples of John, still existing in Syria, the exclusively vegetable diet of the holy Baptist.

### SECTION III.

## DUBIOUS INSECTS.

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### THE BEETLE.



THE beetle is mentioned only in Lev. xi. 22. It is thought by some critics to be a species of the locust, but by others, the very kind of scarabæus which the ancient Egyptians held in such veneration as to pay it divine honors.

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### THE CANKER-WORM.

IN the Philosophical Transactions there is a paper on the *bruchus*, a great number of which were found in Ireland, in the year 1688. We shall present our readers with a few extracts from this work, leaving them to form their own judgment, as to the identity of the insect described with the canker-worm of scripture.

‘These insects appeared first on the south-west coast of the county of Galway, whence they made their way into the more inland parts, where multitudes of them showed themselves among the trees and hedges in the day-time, hanging by the boughs, thousands together, in clusters, sticking to the back of one another, as is the manner of bees when they swarm. In this posture, or lying still, and covert under the leaves of the trees, or clinging to the branches,



they continued quiet, with little or no motion, during the heat of the sun, but towards evening or sun-set they would all rise, disperse, and fly about, with a strange humming noise, much like the beating of drums at some distance, and in such vast incredible numbers, that they darkened the air for the space of two or three miles square.

A short while after their coming, they had so entirely eat up and destroyed all the leaves of the trees for some miles round about, that the whole country, though it was in the middle of summer, was left as bare and naked as if it had been in the depth of winter, making a most unseemly, and, indeed, frightful appearance: and the noise they made whilst they were seizing and devouring this, their prey, was as surprising; for the grinding of the leaves in the mouths of this vast multitude all together, made a sound very much resembling the sawing of timber. Nor were the trees abroad, and the hedges in the field the only sufferers by this vermin; they came also into the gardens, and destroyed the buds, blossoms, and leaves of all the fruit trees, that they were left perfectly naked; nay, many of them that were more delicate than the rest, lost their sap as well as leaves, and quite withered away, so that they never recovered it again. Nay, their multitude spread so exceedingly, that they disturbed men in even their dwellings; for out of the gardens they got into the houses, where numbers of them crawling about were very irksome, and they would often drop on the meat as it was dressing in the kitchen, and frequently fall from the ceiling of the rooms into the dishes as they stood on the table while they ate; so extremely offensive and loathsome were they, as well as prejudicial and destructive.

Nor did the mischievous effects of this pernicious vermin stop here; their numerous creeping spawn, which they had lodged under ground next to the upper sod of the earth, did more harm in that close retirement, than all the flying swarms of their parents had done abroad; for this young destructive brood did not withhold from what was much more necessary to have been spared, and what their sires had left untouched: these lying under ground, fell to devouring the roots of the corn and grass, and eating them up, ruined both the support of man and beast; for these, losing their roots, soon withered and came to nought, to the vast damage of the country.

But notwithstanding this plague of vermin did thus mightily prevail and infest the country, yet it would have been still more violent, had not its rage been fortunately checked several ways. High winds, wet and misling weather, were extremely disagreeable to the nature of this insect; and so prejudicial as to destroy many millions of them in one day's time: whence I gather, that though we have them in these northern moist climates, they are more natural, and more peculiarly belonging to warm and dry countries. Whenever these ill constitutions of the air prevailed, their bodies were so enfeebled, they would let go their holds, and drop to the

ground from the branches where they stuck, and so little a fall as this, at that time, was of sufficient force quite to disable, and sometimes perfectly kill them. Nay, it was observable, that even when they were most agile and vigorous, a slight blow or offence would for some time hinder their motion, if not deprive them of life, which was very extraordinary in a creature of that strength and vivacity in its flight. During these unfavorable seasons of weather, the swine and poultry of the country at length grew so cunning, as to watch under the trees for their falling; and when they came to the ground eat them up in abundance, being much pleased with the food, and thriving well upon the diet; nay, I have been assured, that the poorer sort of the native Irish (the country then laboring under a scarcity of provision) had a way of dressing them, and lived upon them as food; nor is it strange, that what fattened our domestic poultry and hogs, should afford agreeable and sufficient nourishment for the relief of man.

‘But towards the latter end of the summer, the exact time I have not learnt, they constantly eased the country, and retired of themselves; and so wholly disappeared, that in a few days you should not see one left in all those parts that were so lately pestered with them.

‘This pernicious insect of ours, I am fully convinced from good reasons, is that self-same so often mentioned in holy Scripture, and commonly joined in company with the locust, as being both great destroyers of the fruits of the earth.’

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## THE CATERPILLAR.

IN Hebrew this insect is called *the consumer*, and in 1 Kings viii. 37; 2 Chron. vi. 28; Joel i. 4; chap. ii. 25; it is distinguished from the locust properly so called. In Joel i. 4, it is mentioned as eating up what the other species had left, and therefore might well be called *the consumer*, by way of eminence. But the ancient interpreters are far from being agreed what particular species it signifies.

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## THE PALMER-WORM.

BOCHART is of opinion that this insect is a kind of locust, furnished with very sharp teeth, with which it gnaws off grass, corn, leaves of trees, and even their bark. The Jews support this idea

by deriving the word from *guz*, or *gazaz*, *to cut, to shear, to minee*. This sharp instrument of theirs has given occasion to Pisidas to compare a swarm of locusts to a sword with ten thousand edges. Caterpillars begin their ravages before the locust, which, as Mr. Taylor observes, seems to coincide with the nature of the creature here intended: 'That which the *palmer-worm* hath left hath the *locust* eaten; and that which the locust hath left hath the *canker-worm* eaten; and that which the canker-worm hath left hath the *caterpillar* eaten,' Joel i. 4.





## BOTANY.

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THAT branch of natural history which relates to vegetables has been called BOTANY, from *botane*, a plant or herb; and PHYTOLOGER, from *phyton*, a plant, and *logos*, a discourse. It treats of their structure and functions, the systematical arrangement and denomination of their several kinds, and their peculiar properties and uses.

Were all the known objects diffused over the surface of this earth submitted to the examination of a certain number of individuals accustomed to nice and patient investigation, but altogether ignorant of any arrangement hitherto proposed, there can be but little doubt that the same classification would be adopted by all; and that the objects would be divided into three grand assemblages, namely, minerals, plants, and animals; such being, in fact, for the purposes of description, at least, the most convenient distribution that could be adopted. Thus there is no difficulty in distinguishing this mineral body from that plant, or this plant from a horse, an elephant, or any other quadruped. Yet, when we come to examine the confines of these several kingdoms of nature, we find that so nice are the shades and gradations, and so gradual the transitions from one class of bodies to the other, that objects frequently present themselves, to which it would be difficult to assign their proper compartment.

However striking, therefore, the distinctions between animal and vegetable life, in their more perfect and elaborate forms, as we approach the contiguous extremities of the two kingdoms, we find these distinctions fading away so gradually,

Shade unperceived, so softening into shade,

and the mutual advances so close and intimate, that it becomes a task of no common difficulty to draw a line of distinction between them, and determine to which of them an individual may belong.

The structure of vegetables is truly wonderful, and demands our admiring attention. How excellently adapted are the roots for taking hold of their parent earth, as well as for drawing nourishment for the support of the plant, and imbibing moisture from the neighboring soil! How commodiously are the various tubes and fibres composing the trunk or stalk arranged for the motion of the sap upwards, to all the extremities of the leaves and branches! How nicely are the leaves formed for the important services they are made to yield in the economy of vegetation! What an excellent clothing does the bark afford, not only for protecting the stem and branches from external injury, but from the hurtful extremes of

heat and cold! What evident marks of wisdom and design do the flowers evince in their beautiful and delicate construction; how nicely are they formed for the protection and nourishment of the first and tender rudiments of the fruit, and when it has attained more firmness and solidity, how readily do they relinquish their charge, and drop off in decay, when no longer necessary! How wonderfully does the fruit, in some classes, envelope and protect the seed till it has arrived at maturity; and lastly, what a passing strange piece of organized mechanism is the seed itself, and, being necessary for the reproduction of its species, what a remarkable provision is made for its preservation and succession! What but the wisdom of a Deity could have devised, that those seeds which are most exposed to the ravages of the inhabitants of the forest should be not only doubly, but some of them trebly enclosed; that those most in request as articles of food, should be so hardy and so abundantly prolific; and that seeds in general, which are the sport of so many casualties, and exposed to injury from such a variety of accidents, should be possessed of a principle of lasting vitality, which makes it indeed no easy matter to deprive them of their fructifying power! Plants are also multiplied and propagated by a variety of ways, which strengthen the provision made for their succession.

Nor is the finger of Providence less visible in the means for diffusing or spreading abroad vegetables, than in the provision made for keeping up their succession. The earth may be said to be full of the goodness of the Lord; but how comes it to pass, that in parts untrod by man, and on the tops of ruinous buildings, so many varied specimens of the vegetable creation are to be found? Is it not from the manner in which nature's great Husbandman scatters his seeds about? While the seeds of some plants are made sufficiently heavy to fall down and take up their abode near the place of their nativity; and others, after having been swallowed up by quadrupeds, are deposited in the neighboring soil; some are carried by the fowls of the air to places more remote, or, being furnished with a soft plumage, are borne on the winds of heaven to the situations allotted for them. To prevent some from pitching too near, they are wrapped up in elastic cases, which, bursting when fully ripe, the prisoners fly abroad in all directions. To prevent others from straying too far, they are furnished with a kind of grappling hooks, that arrest them in their flight, and attach them to the spot most congenial to their growth. *These are some of the doings of the Lord, and are wondrous in our eyes!*

In the construction of plants we observe a considerable difference in the consistence of the three classes. Compared with the shrubby race, how hard, firm, and tenacious is the trunk of the majestic oak; and, compared with the herbaceous tribe, how woody, tough, and elastic is the hawthorn twig! But for this, how could the mighty monarch of the wood have been able to withstand the fury of the tempest? While the more humble and lowly

shrubs stand not in need of such firmness of texture, their pliability and elastic toughness, together with the prickly coat of mail by which they are enveloped, render them less susceptible of injury in their exposed situation.

Softness, united with a still greater degree of flexibility, are the distinguishing characteristics of the herbaceous order; and how wisely has this been ordered for the various purposes for which they were created! With the firmness of trees, to what a prickly stubble must nature's soft and downy carpet have given way! With the tenacity of shrubs, how would it have answered as food for our cattle?

There are, besides, a number of other properties and peculiarities in the vegetable kingdom, in which the wonderful working of the Divinity shines pre-eminent. How strange, for instance, that if a seed is sown in a reversed position, the young root turns of itself downwards, while the stem refuses to sink deeper in the soil, and bends itself round to shoot up through the surface of the earth! How surprising, that when the roots of a tree or a plant meet with a stone or other interruption in their progress under ground, they change their direction, and avoid it! How amazing, that the numerous shoots which branch out from the root in quest of moisture, pursue, as it were by instinct, the track that leads to it—turn from a barren to a more fertile soil; and that plants shut up in a darksome room, bend or creep to any aperture through which the rays of light may be admitted!

In these respects, the vegetable tribes may be said to possess something analogous to animal life; but here the resemblance does not stop. How surprising the phenomenon of what is called the sleep of plants, and the sexual system of Linnæus, founded on the discovery that there exists in the vegetable, as well as in the animal kingdom, a distinction of sexes.

What amazing variety of size, of shape, and of hue, do we discover among this multitudinous order of things! What different properties do some possess from others; and what a near approach do a few make to that superior order immediately above them, in the scale of existence! The sensitive plant, when slightly touched, evinces something like the timidity of our harmless animals; the *hedysarum gyrans*, or moving plant of the East, exhibits an incessant and spontaneous movement of its leaves during the day, in warm and clear weather; but in the night season, and in the absence of light and heat, its motions cease, and it remains, as it were, in a state of quiescence! The American Venus' flytrap, like an animal of prey, seems to lie in wait to catch the unwary insect.

Plants, nevertheless, do not appear to have the smallest basis for sensation, admitting that sensation is the result of a nervous system; and we are not acquainted with any other source from which it can proceed. Yet, although the vessels of plants do not appear to possess any muscular fibres, we have evident proofs of the existence of a contractile and irritable power from some other principle.



ple; and the facts above referred to, among many others that might be adduced, concur in making it highly probable, that it is by the exercise of such a principle that the different fluids are propelled through their respective vessels. There is no other method by which such propulsion can be reasonably accounted for.

In what part of a plant the vital principle chiefly exists, or to what quarter it retires during the winter, we know not; but we are just as ignorant in respect to animal life. In both it operates towards every point; it consists in the whole, and resides in the whole; and its proof of existence is drawn from its exercising almost every one of its functions, and effecting its combinations in direct opposition to the laws of chemical affinity, which would otherwise as much control it as they control the mineral world, and which constantly assume an authority as soon as ever the vegetable is dead. Hence, the plant thrives and increases in its bulk, puts forth annually a new progeny of buds, and becomes clothed with a beautiful foliage of lungs (every leaf being a distinct lung in itself), for the respiration of the rising brood; and with an harmonious circle of action, that can never be too much admired, furnishes a perpetual supply of nutriment, in every diversified form, for the growth and perfection of animal life; while it receives in rich abundance, from the waste and diminution, and even decomposition of the same, the means of new births, new buds, and new harvests.

Frosts and suns, water and air, equally promote fructification in their respective ways; and the termites or white ant, the mole, the hamster, and the earth-worm, break up the ground, or delve into it, that they may enjoy their salubrious influences. In like manner, they are equally the ministers of putrefaction and decomposition; and liver-worts and fungusses, the ant and the beetle, the dew-worm, the ship-worm, and the wood-pecker, contribute to the general effect, and soon reduce the trunks of the stoutest oaks, if lying waste and unemployed, to their elementary principles, so as to form a productive mould for successive progenies of animal or vegetable existence. Such is the simple but beautiful circle of nature. Every thing lives, flourishes, and decays: every thing dies, but nothing is lost; for the great principle of life only changes its form, and the destruction of one generation is the vivification of the next. Hence, the Hindu mythologists, with a force and elegance peculiarly striking, and which are no where to be paralleled in the theogonies of Greece and Rome, describe the Supreme Being, whom they denominate Brahm, as forming and regulating the universe through the agency of a triad of inferior gods, each of whom contributes equally to the general result, under the names of Brahma, Visnu, and Iswara; or the generating power, the preserving or consummating power, and the decomposing power. And hence the Christian philosopher, with a simplicity as much more sublime than the Hindu's as it is more veracious, exclaims, on con-

templating the regular confusion, the intricate harmony of the scenes that rise before him :

These, as they change, Almighty Father ! these  
Are but the varied God: The rolling year  
Is full of thee.

To the systematic arrangements of Moses and Solomon we have already adverted, in the introductory section to this volume; we shall here merely add, in the words of Mr. Charles Taylor, that no clearer proofs of system can be produced from any writer whatever, than are exhibited in Gen. i. 11, 12, and 1 Kings iv. 33. There is a uniform progress from a lesser to a larger; from 'grass,' including the minutest species of whatever is green, to 'shrubs,' which are apparently taken for trees of the smaller kinds; and from these to 'trees,' which not only differ by their enlarged dimensions, but by their permanency also.

## CHAPTER I.

### GRASS AND HERBS.

THE general term for herbaceous productions, in the Hebrew writings, is *deshā*, although it is also specifically applied to grass in particular. The corresponding Greek term in the New Testament is *chortos*. Wetstein remarks, that the Hebrews divide all kinds of vegetables into *trees* and *herbs*; the former of which the Hellenists call *xylon*, the latter *chortos*, under which they comprehend grass, corn, and flowers. In Matt. vi. 30, and Luke xii. 28, this term is certainly designed to include the lilies of the field, of which our Saviour had just been speaking.

There is great impropriety in our version of Proverbs xxvii. 25: 'The hay appeareth, and the tender grass sheweth itself, and herbs of the mountains are gathered.' Certainly, if the tender grass is but just beginning to show itself, the hay, which is grass cut and dried, after it has arrived at maturity, ought by no means to be associated with it; still less to precede it. Upon this passage, Mr. Taylor remarks, that none of the Dictionaries or Lexicons give what seems to be the accurate import of the word translated *hay*, which he takes to mean the first shoots, the rising—just budding—spires of grass. So the wise man says, 'the tender risings of the grass are in motion; and the buddings of grass (grass in its early state) appear; and the tufts of grass, proceeding from the same root, collect themselves together, and, by their union, begin to clothe the mountain tops with a pleasing verdure.' Surely, the beautiful progress of vegetation, as described in this passage, must appear to every man of taste as too poetical to be lost; but what must it be to an eastern beholder—to one whose imagination is exalted by a poetic spirit—one who has lately witnessed an all-surrounding sterility—a grassless waste!

The same impropriety, but in a contrary order, and where perhaps the English reader would be less likely to detect it, occurs in our version of Isaiah xv. 6, 'For the waters of Nimrim [water is a principal source of vegetation] shall be desolate—departed—DEAD; so that [the 'hay' in our translation, but as it should be] the tender—just sprouting—risings of the grass are withered—dried up; the buddings of the grass are entirely ruined,' ['there is no green thing,' in our version.] The following verse may be thus translated: 'Inasmuch, that the reserve he had made, and the deposit he had placed with great care in supposed security, shall all be driven to the brook of the willows.'

A similar gradation of poetical imagery is used in 2 Kings xix. 26, 'Their inhabitants were of shortened hand; dismayed, ashamed, they were as grass of the field, *vegetables in general*, as the green buddings of grass; as the tender risings on the house tops; and those, *too*, struck by the wind, before it is *advanced in growth* to a rising up.' What a climax of imbecility!

Is it not unhappy, that in the only two places of the Old Testament where our translators have used the word *hay*, it should be necessary to substitute a word of a directly contrary meaning, in order to accommodate the true rendering of the passages to the native (eastern) ideas of their authors?

## SECTION I.

### GRAIN.

THE generic name for grain, in the Old Testament writings, is *dagen*, corn; so named from its abundant increase. In Gen. xxvi. 12, and Matt. xiii. 8, grain is spoken of as yielding a hundred fold; and to the ancient fertility of Palestine all authorities bear testimony. Burckhardt states, that in some parts of the Haouran, a tract of country on the east of the river Jordan, he found the barley to yield eighty fold, even in the present neglected state of the country.

It is evident from Ruth ii. 14, 2 Sam. xvii. 28, 29, and other passages, that parched corn constituted part of the ordinary food of the Israelites, as it still does of the Arabs. Their methods of preparing corn for the manufacture of bread were the following. The thrashing was done either by the staff or the flail, (Isa. xxviii. 27, 28)—by the feet of cattle (Deut. xxv. 4)—or by ‘a sharp thrashing instrument having teeth’ (Isa. xli. 15), which was something resembling a cart, and drawn over the corn by means of horses or oxen. When the corn was thrashed, it was separated from the chaff and dust, by throwing it forward across the wind, by means of a winnowing fan, or shovel (Matt. iii. 12); after which the grain was sifted to separate all impurities from it, Amos ix. 9; Luke xxii. 31. Hence the thrashing floors were in the open air, Judg. vi. 11; 2 Sam. xxiv. 18. The grain thus obtained was commonly reduced to meal by the hand-mill, which consisted of a lower mill-stone, the upper side of which was concave, and an upper mill-stone, the lower surface of which was convex. The hole for receiving the corn was in the centre of the upper mill-stone, and in the operation of grinding, the lower was fixed, and the upper made to move round upon it, with considerable velocity, by means of a handle. These mills are still in use in the East, and in some parts of Scotland, where they are called *querns*. The employment of grinding with these mills is confined solely to females; and the practice illustrates the prophetic observation of our Saviour, concerning the day of Jerusalem’s destruction; ‘Two women shall be grinding at the mill: one shall be taken, and the other shall be left,’ Matt. xxiv. 41. Mr. Pennant, who has given a particular account of these hand-mills, as used in Scotland, observes, that the women always accompany the grating noise of the stones with their voices; and that when ten or a dozen are thus employed, the fury of the song rises to such a pitch, that you would, without breach of charity, imagine a troop of female demoniacs to be assembled. As the operation of

grinding was usually performed in the morning at day-break, the sound of the females at the hand-mill was heard all over the city, which often awoke their more indolent masters. The Scriptures



mention the want of this noise as a mark of desolation in Jer. xxv. 10, and Rev. xviii. 22. There was a humane law, that 'no man shall take the nether or upper mill-stone in pledge, for he taketh a man's life in pledge,' Deut. xxiv. 6.—He could not grind his daily bread without it.

The late editor of Calmet has some valuable remarks upon the adoption of grain as a symbol of a future state: we need no apology for offering the result of his inquiries to our readers.

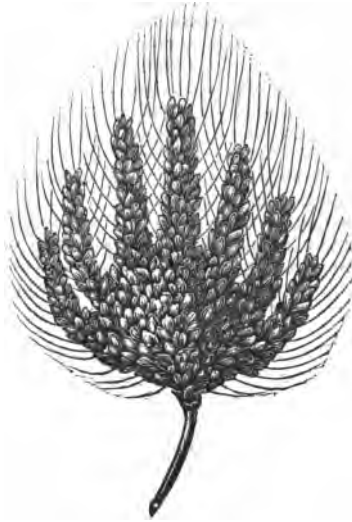
The close of life at mature age is compared to a shock of corn fully ripe: 'Thou shalt come to thy grave in a full age, like as a shock of corn cometh in (to the garner) in its season,' Job v. 26. See also Gen. xxv. 8, and Job xlii. 17.

Our Lord compares himself to a corn of wheat falling into the ground, but afterwards producing much fruit (John xii. 24); and the prophet Hosea (xiv. 7,) speaks of 'growing as the vine, and reviving as the corn.' In fact, the return of vegetation, in the spring of the year, has been adopted very generally, as an expressive symbol of a resurrection. The apostle Paul uses this very simile, in reference to a renewed life; 'The sower sows a bare—naked—grain of corn, of whatever kind it be, as wheat, or some other grain, but after a proper time it rises to light, clothed with verdure; clothed also with a husk and other appurtenances, according to the nature which God has appointed to that species of seed; analogous to this is the resurrection of the body,' &c. 1 Cor. xv. 37. Now if this comparison were in use among the ancients, (and a gem of Mountfagon declares its antiquity) it could hardly be unknown to the Corinthians, in their learned and polite city, the 'Eye of

Greece;’ neither could it well be confined to the philosophers there, but must have been known by those to whom the apostle wrote generally. If so, then not only was the sacred writer justified in selecting it by way of illustration, but he had more reason than modern inconsiderates have supposed for calling them ‘fools’ who did not properly reflect on what was acknowledged and admitted among themselves.

There is a very sudden turn of metaphor used by the apostle Paul, in Romans vi. 3—5; ‘Know ye not that so many of us as were baptized into Jesus Christ, were baptized into his death? therefore we are *buried* with him by baptism into death—that we should walk in newness of life. For if we have been *planted* together [with him] in the likeness of his death, we shall be also planted in the likeness of his resurrection.’ But what has baptism to do with planting? Wherein consists their similarity, so as to justify the resemblance here implied? In 1 Peter iii. 21, we find the apostle speaking of baptism, figuratively, as ‘saving us;’ and alluding to Noah, who long lay buried in the Ark, as corn long lies buried in the earth. Now, as after having died to his former course of life, in being baptized, a convert was considered as rising to a renewed life, so after having been separated from his former connexions, his seed-bed as it were, after having died in being planted, he was considered as rising to a renewed life, also. The ideas therefore conveyed by the apostle in these verses are precisely the same; though the metaphors are different. Moreover, if it were anciently common to speak of a person, after baptism, as rising to a renewed life, and to consider corn also as sprouting to a renewed life, then we see how easily Hymeneus and Philetus (2 Tim. ii. 17, 18,) ‘concerning the truth might err, saying, that the resurrection was past already,’ in baptism, [*quasi* in planting—that is, in being transferred to Christianity] in which error they did little more than annex their old heathen notions to the Christian institution. The transition was extremely easy; but unless checked in time, the error might have become very dangerous.

## W H E A T .



THIS is the principal and most valuable of all kinds of grain. It is called in Hebrew *chetah*, a word the etymology of which it is not easy to ascertain. In 2 Samuel xvii. 28, the word occurs in a plural form, whence Scheuchzer infers, that it comprehended, anciently, all sorts of wheaten corn cleansed from impurities. This, however, seems doubtful, because *barley* is expressly mentioned in connexion with it: it refers perhaps to several kinds of wheat; or what is more probable, is a specimen of that lax mode of expression which is so common, and indeed necessary, in all languages.

The *meat-offerings*, as they are called in the English Bible, of the Levitical dispensation, were not what their designation would seem to imply; *animal flesh*, but *wheat*, either in its simple state, or reduced to flour, or made up into cakes. See Lev. ch. ii.

The *wheat (ber)* of Jer. xxiii. 28, Joel ii. 24, and Amos v. 11, is no doubt the *burr* or wild corn of the Arabs, mentioned by Forskal, In Gen. xli. 35, the same word is rendered *corn*.



## BARLEY.

THIS well known grain derives its Hebrew name *shorek*, from the long hairy beard which grows upon its ear.

In Palestine, the barley was sown in the month of October, and reaped in the end of March, just after the passover. In Egypt, at the time of the seventh plague (Exod. ix. 13), which happened a few days before the passover, the barley was in the green ear, from which it seems that the harvest was later there than in the land of Canaan.

In 1 Kings iv. 28, barley is spoken of as the usual food for horses, and so it still continues to be in Syria.

Pliny states barley to have been the most ancient aliment of mankind, and it is evident from several passages of scripture, that it was used for the making of bread among the Jewish people. See 2 Sam. xvii. 28; 2 Kings iv. 22; 2 Chron. ii. 15; John vi. 8—10, &c.

## RYE.

THIS species of corn is called *oesmeth*, probably from its long hair or beard. Dr. Shaw supposes that *rice* is the grain intended by the original. On the other hand, Nesselquist states that the Egyptians learned the cultivation of rice under the Caliphs; and Parkhurst has shown that the traveller has misunderstood the statement of the Roman naturalist. In Ezek. iv. 9, the Hebrew word is rendered *fitches*, a kind of tare.

## MILLET.

THE Hebrew name of this grain is *dechen*, from a root which signifies to *thrust forth, impel*, &c.; and it is so called, perhaps, from its thrusting forth such a quantity of grains, above every other known plant. Thus, in Latin it is called *mīlum*, as if one stalk bore a thousand grains. It is no doubt the same kind of grain as is now called in the East *durra*, which is a kind of millet, and when made into bad bread, with camel's milk, oil, butter, or grease, is almost the only food which is eaten by the common people in Arabia Felix. Niebuhr found it so disagreeable, he states, that he would willingly have preferred to it plain barley-bread. This remark tends to illustrate Ezekiel iv. 9.

## SECTION II.

### REEDS.

On the banks and in the streams of the Nile reeds grow in immense quantities, and hence it is, probably, that in 2 Kings xviii. 21, the country of Egypt is called a reed: 'Now, behold, thou trusteth upon the staff of this bruised reed, even upon Egypt, on which if a man lean, it will go into his hand and pierce it: so is Pharaoh king of Egypt unto all that trust on him.' The prophet Ezekiel attests the fidelity of the Assyrian general's representation: 'And all the inhabitants of Egypt shall know that I am the Lord, because they have been a staff of reed to the house of Israel. When they all took hold of thee by thy hand, thou didst break and rend their shoulder: and when they leaned upon thee, thou breakest and madest all their loins to be at a stand,' ch. ix. 6, 7. Hence we see what is meant by a bruised reed, in Isa. xlii. 3, and from its reference to the church, we must understand it of a weak believer, or perhaps, more particularly, of one whose heart is broken and contrite, for past offences.

In 1 Kings xiv. 15, the transgressions of Israel call forth the following denunciation of punishment: 'The Lord shall smite Israel *as a reed shaken in the water*, and he shall root up Israel out of the good land which he gave to their fathers, and shall scatter them beyond the river, because they have made their idol groves, provoking him to anger.' There is the same allusion in Matt. xi. 7, where our Saviour says of John the Baptist, that he was not a reed shaken with the wind. There was nothing vacillating or unstable in his character: his mind was constant, and fixed on the truth; and his testimony to the character of the Saviour was always the same.

From Ezek. xl. 3, and Rev. xi. 1, we learn that the long stalk of the reed was used as a measuring-rod; and from Isaiah xlvi. 6, it seems to have been employed as a balance, perhaps after the same manner as the Roman steel-yard.

In the neighborhood of Suez some of these reeds grow to the height of twelve yards; hence we see how easily, by means of one of them, the soldier who stood at the foot of our Saviour's cross, could raise to his mouth a sponge filled with vinegar, Matt. xxvii. 48.

We must not omit to notice the appropriation of reeds to the purposes of writing, before the invention of our common pens, as there are several allusions to them in the sacred writings, although not discernible in the English Bible.

## THE BULRUSH, OR PAPYRUS.

THE bulrush grows in the marshes of Egypt, or in the stagnant places of the Nile, made by the flowing of the river, where they are not above the depth of two cubits. Its roots are tortuous, and in thickness about four or five inches; its stem is triangular, rising to the height of ten cubits, and terminating in a crown of small filaments resembling hair, which the ancients used to compare to a *thyrsus*.

The papyri were produced in such great quantities on the banks of the Nile, that Cassiodorus compares them to a forest. 'There rises to the view this forest without branches, this thicket without leaves, this harvest of the waters, this ornament of the marshes.'

This reed was of the greatest use to the inhabitants of the country where it grew; the pith contained in the stalk served them for food, and the woody part for the construction of vessels. For this purpose they made it up, like rushes, into bundles, and by tying these together, they gave to their vessels the necessary shape and solidity. The vessels of bulrushes (Isa. xviii. 2,) or papyri, mentioned in sacred and profane history, says Dr. Shaw, were no other than large fabrics of the same kind with that of Moses (Exodus ii. 3,) which from a late introduction of plank and stronger materials, are now laid aside. Thus, Pliny notices 'ships made of papyrus and the equipments of the Nile;' and in another place he says, 'Of the papyrus itself they construct sailing vessels.'

The most useful and valuable part of the papyrus, however, was its delicate rind or bark, which was used for the purpose of writing upon. To prepare it for this, the several coatings of which the stem is composed were carefully separated and spread out upon a table, artfully matched and pressed together, and moistened with the water of the Nile, which, dissolving the glutinous juices of the plant, caused them to adhere closely together. They were afterwards pressed, and then dried in the sun; and thus were rendered fit for writing upon, in characters marked by a colored liquid passing through a hollow reed.

These vegetables require much water for their growth; when, therefore, the river on whose banks they grow, is reduced, they perish sooner than other plants. This explains Job viii. 11, where the circumstance is referred to as an image of transient prosperity: 'Can the paper reed grow up without ooze? Can the bulrush grow up without water.'

The papyrus being an esculent plant, there was nothing extraordinary in its being eaten, as intimated in Jeremiah xv. 16; Ezekiel iii. 1; and Revelation x. 10.

## THE CANE.

THE Calamus Aromaticus, or sweet-scented cane, grows in Egypt, in Judea, and in several parts of Syria, but the best kind is found in Arabia and India. It was probably among the number of those plants that the Queen of Sheba presented to Solomon. So powerful is its fragrance, that the air is said to be filled with a strong aromatic smell, even while it is growing (see Cant. iv. 13, 14); and when dried and reduced to powder, it forms an ingredient in the richest perfumes. It was used for this purpose by the Jews, Exodus xxx. 23; Isaiah xliii. 24.

Jeremiah (ch. vi. 20), speaks of the 'rich aromatic reed,' as coming from a 'far country,' whence it would hardly have been fetched, could it have been procured near home. It is most probable, as Dr. Harris suggests, that this reed, as well as the frankincense spoken of in connexion with it, came to them from Saba, where it grew. Saba, we know, was situated towards the southern peninsula of Arabia; so that it was, indeed, with respect to Judea, 'a far country,' as it also is said to be in Joel iii. 8. And our Saviour, speaking of its queen, whom he calls 'the queen of the south,' says that she came 'from the extreme parts of the earth,' Matthew xii. 42. In the book of Exodus, also, the calamus is said to come from 'a far country.'

## THE FLAG.

THERE are two words in the Hebrew, sometimes translated 'flag,' in our Bibles; though in Genesis xli. 2, 18, the one is rendered meadow, and in Jonah ii. 5, the other, 'weeds.' It probably denotes the sedge or long grass, which grows in the meadows of the Nile.

### SECTION III.

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#### PULSE.

THE term Pulse is applied to leguminous plants, or those grains or seeds that grow in pods. In 2 Samuel xvii. 28, the word occurs twice; once being joined with barley and meal, it is rightly explained in our translation by 'parched corn;' in the other case, following beans and lentils, it is properly understood of 'parched pulse.' Both these still make part of the food of the eastern people. 'Roasted ears of wheat,' are an ancient dish in the east, of which mention is made in the Book of Ruth, i. 22. As to the *parched pulse* of 2 Sam. xvii. 28, Dr. Shaw informs us, that the *cicer* or *chick peas*, are in the greatest repute after they are parched in pans or ovens, then assuming the name of *leblebby*. This, he adds, seems to be of the greatest antiquity; for Plautus speaks of it as a thing very common in his time. The *leblebby* of those times may probably be the 'parched pulse,' of the holy Scriptures.

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#### LENTILS.

THESE are a sort of pulse which grow plentifully in Egypt, and are much used as food. They were little esteemed by the Romans, who ranked them below that species of grain from which they made a kind of beer, the *alica*. But Dr. Shaw states, that in Barbary, they form, next to beans, a part of the principal food of the inhabitants. They are dressed in the same manner with beans, that is, boiled and stewed with oil and garlic, dissolving easily into a mass, and making a pottage of a chocolate color. This, was perhaps the 'red pottage,' which Esau, from thence called Edom, exchanged for his birth-right, Gen. xxv. 30, 34.

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#### BEANS.

BEANS are enumerated among the provisions brought to David at Mahanaim (2 Samuel xvii. 28), and also among the ingredients with which the prophet Ezekiel was to make his bread, ch. iv. 9. These passages may be illustrated by what Dr. Shaw says about the modern diet of the people of Barbary: 'Beans, after they are boiled and stewed with garlick, are the principal food of persons of all distinctions.'

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## SECTION IV.

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### W E E D S.

IN Jonah ii. 6, the Hebrew word *soph* is translated weeds, and it is the only passage in the English Bible in which it is so rendered. Parkhurst says, as a collective noun, it means plants or weeds which grow on the border of a river or sea, and are continually swept or brushed by the waves. Plants of this description certainly well agree with the passage in Jonah.

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### COCKLE.

THE Hebrew word, which we render cockle, occurs only in Job xxxi. 40, and is variously translated by the versions. In Isaiah v. 2, 4, the prophet mentions a plant or a fruit under a very similar name, but in the English version 'wild grapes.' Michaelis maintains, that both words denote the aconite, a poisonous plant, growing spontaneously and luxuriantly on sunny hills, such as are used for vineyards.

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### FITCHES.

THERE are two words in the Hebrew Bible which the English translators have rendered *fitches* or *vetches*, a kind of tare commonly cultivated in England as food for animals:—much difference of opinion exists as to the plant intended where the word 'fitches' occurs. If it be the same as we call vetches, it certainly has its place among leguminous or pod-bearing plants;—but, on the whole, there appears a greater probability that the *nigella*, or some similar plant bearing seeds of an aromatic flavor, is intended. Ausonius says, the gith is 'pungent as pepper;' and Pliny adds, that its seed is good for seasoning food. He also states it to be of great use in the bake-house, and that it affords a

grateful seasoning to bread ; perhaps by sprinkling it upon it, as we do caraway and other small seeds.

Mr. Parkhurst thinks the gith to have been the same as our fennel ; and he quotes Ballester, who says, ' gith is commonly met with in gardens ; it grows a cubit in height, sometimes more. The leaves are small, *like those of fennel*, the flower blue, which, disappearing, the ovary shows itself on the top, like those of a poppy, furnished with little horns, oblong, divided by membranes into several partitions and cells, in which are inclosed seeds of a very black color, not unlike those of a leek, but very fragrant.' But, as Mr. Taylor justly suggests, the circumstance of Ballester *comparing* the gith to the fennel is decisive against the notion of Parkhurst, that it was this particular plant. That it classes with the fennel may be readily admitted ; but not that it is the same.

## CHAPTER II.

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### PLANTS AND SHRUBS.

IN this chapter the reader will find some things which he will probably think ought to have been placed in the former one, in accordance with the remarks which were offered on the Mosaic distribution of the vegetable kingdom. But the difficulty of adopting such a classification as would have included them under that division, must plead our apology for departing from the order which it was natural to expect would be followed in this part of the work.



## SECTION I.

### AROMATIC PLANTS.

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#### CAMPHOR.

THIS shrub was formerly considered as a species of privet, to which it has, indeed, many relations; but difference in the parts of fructification has determined botanists to make a distinct genus of it, to which Linnéus has given the name of *lawsonia*, and to that species we are describing, *lawsonia inermis*. Its Arabic name is *henna*; and with the article, *al-henna*.

The al-henna is mentioned in Cant. i. 14, and iv. 13, as a perfume; in the former passage notice is taken of its clusters. Dr. Shaw describes it as a beautiful odoriferous plant, which grows ten or twelve feet high, putting out its little flowers in clusters, which yield a most grateful smell, like camphor. But the fullest description of the al-henna is that furnished by Sonnini, from whom we make the following extracts.

The henna is a tall shrub, endlessly multiplied in Egypt; the leaves are of a lengthened oval form, opposed to each other, and of a faint green color. The flowers grow at the extremity of the branches, in long and tufted boquets; the smaller ramifications which support them are red, and likewise opposite; from the armpit cavity springs a small leaf almost round, but terminating in a point; the corolla is formed of four petals, curling up, and of a light yellow. Between each petal are two white stamina with a yellow summit; there is only one white pistil. The pedicle, reddish at its issuing from the bough, dies away into a faint green. The calix is cut into four pieces, of a tender green up toward their extremity, which is reddish. The fruit or berry is a green capsule, previous to its maturity; it assumes a red tint as it ripens, and becomes brown when it is dried; it is divided into four compartments, in which are enclosed the seeds, triangular and brown-colored. The bark of the stem and of the branches is of a deep grey, and the wood has, internally, a light cast of yellow. Though its figure has been already published in several books on natural history, it has not been faithfully represented in any one, or with such exactness of detail, as in the drawing which I had taken of it at Rosetta.

In truth, this is one of the plants the most grateful to both the sight and the smell. The gently deepish color of its bark, the light green of its foliage, the softened mixture of white and yellow with which the flowers, collected into long clusters like the lilach, are

colored, the red tint of the ramifications which support them, form a combination of the most agreeable effect. These flowers, whose shades are so delicate, diffuse around the sweetest odors, and embalm the gardens and the apartments which they embellish; they accordingly form the nosegay of beauty; the women—ornaments of the prisons of jealousy, whereas they might be that of a whole country—take pleasure to deck themselves with these beautiful clusters of fragrance, to adorn their apartments with them, to carry them to the bath, to hold them in their hand: in a word, to *perfume their bosom with them*. They attach to this possession, which the mildness of the climate, and the facility of culture, seldom refuse them, a value so high, that they would willingly appropriate it exclusively to themselves; and they suffer with impatience Christian women and Jewesses to partake of it with them.

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## A L O E S.

This is an extensive tribe of plants, the principal species amounting to nine in number: they differ much in size.

From this plant is extracted the drug called aloe, which is a very bitter liquor, used in embalming, to prevent putrefaction. Nicodemus brought about a hundred pounds weight of myrrh and aloe, to embalm the body of our Saviour, John xix. 39.

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## THE MYRTLE.

In our ungenial climate, the myrtle is a lowly shrub; but in other and more favorable countries, it sometimes grows to a small tree. It is a hard woody root, that sends forth a great number of small flexible branches, furnished with leaves like those of box, but much smaller, and more pointed: they are soft to the touch, shining, smooth, of a beautiful green, and have a smell. The flowers grow among the leaves, and consist of five white petals, disposed in the form of a rose: they have an agreeable perfume, and an ornamental appearance. They are succeeded by an oval, oblong berry, adorned with a sort of crown, made up of the segments of the calix: these are divided into three cells, containing the seeds.

The myrtle is, in scripture, sometimes classed with large trees, as the cedar and the olive, compared with which it is, in point of size, very inconsiderable. But the seeming impropriety vanishes, when it is considered that the prophet intends to describe a scene of va-

ried excellence and beauty : 'I will plant in the wilderness, the cedar and the shittah tree, and the myrtle, and the oil tree' (Isaiah, xli. 19); that is, says Paxton, 'I will adorn the dreary and barren wilderness with trees famed for their stature, and the grandeur of their appearance; the beauty of their form, and the fragrance of their odor.' Again : 'Instead of the thorn shall come up the myrtle tree; and it shall be to the Lord for a name, for an everlasting sign, that shall not be cut off,' Isaiah lv. 13.

These quotations, continues the writer just quoted, refer to the effect of the gospel, or the reign of Christ, on the state of the world, and the dispositions of mankind. They foretel the production of a moral paradise, by the creative power of Jehovah, where nothing but sin and misery reigned before. The prophet Zechariah chooses the myrtle to express the beauty, and utility, and low condition of the church : 'A man, seated on a red horse, was seen among the myrtle trees which were in the bottom of some valley,' chap. i. 18. This visionary scene, while it presents a just idea of the lowly and depressed state of the church, and suggests many pleasing reflections concerning her preservation and security under the protection of her Saviour, agrees with the aspect of nature in the East, where the groves of myrtle are so frequently to be seen rising to a considerable height, although not so high as to conceal a man on horseback, especially from one advantageously placed on a rising ground, as the prophet in vision seems to have been.

The aspect of nature, to which these scriptures refer, is beautifully displayed by the glowing pen of Savary, in his Letters on Greece. Describing a scene at the end of the forest of Platanea, he says, 'Myrtles, intermixed with laurel roses, grow in the valleys, to the height of ten feet. Their snow-white flowers, bordered within with a purple edging, appear to peculiar advantage under the verdant foliage. Each myrtle is loaded with them, and they emit perfumes more exquisite than those of the rose itself: they enchant every one, and the soul is filled with the softest sensations.'

The original Jewish name of Esther is *hedeseh*, the feminine of *hede*, a myrtle, Esther ii. 7. The note of the Chaldee Targum on the passage seems remarkable : 'They called her *hedeseh*, because she was just, and the just are those that are compared to myrtle.'

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## THE LILY.

THIS well-known and beautiful flower is called, in Hebrew, *shushan*, and in Greek *krison*; which words seem to denote the light which it so strongly reflects, that even Solomon in all his glory was not arrayed like one of them, Matt. vi. 28, 29. Mr. Taylor suggests that this flower was probably designed by the bride, who compares

herself to 'a flower of the brook side' (Cant. ii. 1); not of a cultivated garden. The white lily is a flower of the field, in Persia; and some of its species may be field-flowers in Judea. Besides this, there is the martagon, crown imperial, and other colored lilies. If the comparison of our Saviour be to the whiteness of Solomon's raiment, then, certainly, it never equalled the brilliant whiteness of a lily:—if it be to the resplendence of colors, then the mixture, the relief, the *glow* of colors, in some kinds of lilies, exceeds whatever the manufacturers of stuffs for Solomon's wardrobe could compose. The lily of the field was perhaps present and pointed at, when our Divine Master suggested this simile: if so, it was certainly a wild lily that was intended.

Among the ornaments of the temple furniture, the lily occupied a conspicuous place. The brim of the molten sea was wrought with flowers of lilies (1 Kings vii. 26); the chapters that were upon the tops of the pillars were of lily work, (ver. 19) and the tops of the pillars were ornamented in the same manner, ver. 22.

Sir Robert Ker Porter, describing a piece of sculpture, which he discovered among the ruins of the palace of forty pillars, at Persepolis, remarks, 'Almost every one in this procession holds in his hand a figure like the lotos. This flower was full of meaning among the ancients, and occurs all over the East. Egypt, Persia, Palestine, and India, present it every where over their architecture, in the hands and on the heads of their sculptured figures, whether in statue or in bas relief. We also find it in the sacred vestments and architecture of the tabernacle and temple of the Israelites, and see it mentioned by our Saviour, as an image of peculiar beauty and glory, when comparing the works of nature with the decorations of art. It is also represented in all pictures of the salutation of Gabriel to the Virgin Mary; and, in fact, has been held in mysterious veneration by people of all nations and times. 'It is the symbol of divinity, of purity, and abundance, and of a love most complete in perfection, charity, and benediction; as in holy scripture, that mirror of purity, Susanna is defined *Susa*, which signifieth the lily flower, the chief city of the Persians bearing that name for excellency. Hence the lily's three leaves in the arms of France, meaneth Piety, Justice, and Charity.' So far the general impression of a peculiar regard to this beautiful and fragrant flower; but the early Persians attached to it a peculiar sanctity.'

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## CUMMIN.

THIS is an umbelliferous plant, resembling fennel in its appearance and growing plentifully in Lesser Asia, Egypt, Syria, Spain, Italy, and other hot countries. It produces a seed which has a bitterish

warm taste, accompanied with an aromatic flavor, not of the most agreeable kind. The Jews sowed it in their fields, and when ripe, thrashed out the seeds with a rod, Isaiah xxviii. 25, 27. The Maltese sow it, and collect the seeds in the same manner. Our Lord reproved the Scribes and Pharisees for so scrupulously paying the tithes of mint, anise and cummin, while they neglected good works, and more essential obedience to God's law, Matt. xxiii. 23.

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### ANISE.

PROFESSOR CAMPBELL has pointed out the mistake into which our translators have fallen, by confounding two words which have no connexion—*anethon* and *anison*; the former is that used in the text, and signifies, not *anise*, but *dill*: the latter denotes anise, but it does not occur in the sacred writings.

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### HYSSOP.

THIS vegetable receives its name from its detersive and cleansing qualities, whence it was used in sprinkling the blood of the paschal lamb (Exod. xii. 22;) in cleansing the leprosy (Lev. xiv. 4, 6, 51, 52;) in composing the water of purification (Numb. xix. 6,) and also in sprinkling it, ver. 18. It was typical of the purifying virtue of the *bitter* sufferings of Christ, and it is plain, from Ps. li. 9, that the Psalmist understood its import.

The hyssop is an herb of a bitter taste, and grows on the mountains near Jerusalem, as well as on the walls of the city. Hasselquist speaks of some which was a very diminutive moss—a striking contrast to the tall and majestic cedar. See 1 Kings iv. 33.

Bochart, Scheuchzer, Parkhurst, and other critics, to get rid of a supposed discrepancy between the evangelists, have conceived that the hyssop of John xix. 29 must be considered as synonymous with the reed or cane of Matt. xxvii. 48, and Mark xv. 36; and hence Wolfius has taken some pains to show that there was a species of hyssop whose stalk was sometimes two feet long, and therefore sufficient to reach a person on a cross, that was by no means so lofty as some have erroneously conceived. But the difficulty, as Dr. Harris has shown, is not in the text itself, which is sufficiently intelligible, and clearly compatible with the statement of the other evangelists. John does not mention the reed; but says, that when they had put the sponge upon hyssop; that is, when they had added *bitter to the sour*, or *gall to the vinegar*, they advance it to our Saviour's mouth, no doubt, *with the reed*.

## THE JUNIPER.

It is very questionable whether this shrub is mentioned in scripture, though it is found in our translation.

In 1 Kings xix. 4, we read of the prophet sheltering himself under a *retem*, [Eng. Tr. juniper-tree,] as Jonah was glad to avail himself of the frail covert of a gourd from the oppressive heat of the sun, Jonah iv. 8.

In Job xxx. 3, 4, the afflicted patriarch speaks of those having him in derision,

Who were, yesterday, gnawers of the desert,  
Of the waste and the wilderness;  
Plucking nettles from the bushes,  
Or Juniper- [*retem*] roots for their food.

But this passage will not help us to determine whether the *retem* be the juniper or the broom; for the roots of neither the one nor the other, nor, indeed, of any other plants in those arid deserts, could furnish a nutritive article of food. The circumstance is mentioned as a proof of their utter destitution, and Parkhurst has shown, from several writers, that the most innutritive substances have been eaten among many people in times and places of scarcity and famine. Dr. Good quotes the following passage in Lucan, as bearing a striking resemblance to the description of Job:—

He marks the wretched throng,  
Seize food for cattle, crop the prickly briar,  
And fell the grove with gnawing.

The Psalmist (cxx. 4,) mentions the coals of the juniper as affording the fiercest fire of any combustible matter that he found in the desert, and therefore the fittest punishment for a deceitful tongue: 'What shall be given unto thee, or what shall be done unto thee, thou false tongue? Sharp arrows of the mighty, with coals of juniper.' That is, The wrath of God, like a keen and barbed arrow from the bow of the mighty, shall pierce the strongest armor, and strike deep into the hardest heart, and, like the fierce and protracted flame of the juniper, shall torment the liar with unutterable anguish.

## SECTION II.

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### THE CUCUMBER.

THIS is very common fruit amongst us, but is much more so in Egypt, where it is also more agreeable to the taste, and more easy of digestion. Hasselquist supposes the cucumber mentioned in Numb. xi. 5, to be the 'queen of cucumbers,' which he thus describes: 'It grows in the fertile earth round Cairo, after the inundation of the Nile, and not in any other place in Egypt, nor in any other soil. It ripens with water-melons; its flesh is almost of the same substance, but is not near so cool. The *grandeos* eat it as the most pleasant food they find, and that from which they have least to apprehend. It is the most excellent of this tribe of any yet known.'

Mr. Jowett has the following passage in his 'Christian Researches.' 'Extensive fields of ripe melons and cucumbers adorned the sides of the river [Nile]; they grew in such abundance, that the sailors freely helped themselves. Some guard, however, is placed upon them. Occasionally, but at long and desolate intervals, we may observe a little hut, made of reeds, just capable of containing one man; being, in fact, little more than a fence against a north wind. In these I have observed, sometimes, a poor old man, perhaps lame, feebly protecting the property. It exactly illustrates Isaiah i. 8: 'And the daughter of Zion is left, as a lodge in a garden of cucumbers.' The numbers of these most necessary vegetables bring to mind the murmurs of the Israelites: 'We remember the cucumbers, and the melons, and the leeks, and the onions, and the garlic: but now our soul is dried away.'

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### THE MELON.

MELONS are in the Hebrew scriptures named from the verb which signifies to *hang close, cling, &c.*; and they are no doubt so named from the manner in which their tendrils cling to whatever they can lay hold on, in order to support themselves. Hasselquist says, the melon is cultivated on the banks of the Nile, in the rich clayey earth, which subsides during the inundation; and in the Ial- and Delta, especially at Burlos, whence the largest and best are

brought. This serves the Egyptians for meat, drink, and physic. The flesh of it is eaten with bread; the juice of it is collected in a hole made in the melon, and is a most refreshing, but sometimes dangerous drink; and the same juice, mixed with rose-water and a little sugar, is the only medicine used by the common people in burning fevers. This is very comfortable to the patient, for it cools and refreshes him. See Numb. xi. 5.

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## THE MANDRAKE.

THERE are two sorts of Mandrakes:—the *female*, which is black, having leaves not unlike lettuce, though smaller and narrower, which spread on the ground, and have a disagreeable smell. It bears berries something like services, pale, of a strong smell, having kernels within, like those of pears. It has two or three very large roots, twisted together, white within, black without, and covered with a thick rind. The other kind, or *male* mandrake, is called *morion*, or folly, because it suspends the use of the senses. It produces berries twice the size of those of the female, of a good scent, and of a color approaching towards saffron. Its leaves are white, large, broad, and smooth, like the leaves of the beech tree. Its root resembles that of the female, but is thicker and bigger. This plant stupifies those who use it; sometimes depriving them of understanding; and often causes such vertigoes and lethargies, that, if those who have taken it have not present assistance, they die in convulsions.

From Cant. vii. 13, it appears that the mandrake yielded a remarkable smell at the time when the vines and pomegranates flowered, which in Judea is about the end of April, or beginning of May. It is probable, therefore, that this circumstance of their smell is to be referred to the fruit rather than to the flower, especially as Brookes, who has given a particular description and a print of the plant, expressly observes that the fruit has a strong, nauseous smell, though he says nothing about the scent of a flower.



## SECTION III.

### THORNY SHRUBS AND PLANTS.

IN the curse pronounced on the ground (Genesis iii. 17, 18) says Dr. A. Clarke, there is much more implied than generally appears. The amazing fertility of some of the most common thistles and thorns renders them the most proper instruments for the fulfilment of this sentence against man. Thistles multiply enormously: a species called the *Carolina silvestris* bears ordinarily from twenty to forty heads, each containing from one hundred to one hundred and fifty seeds. Another species, called the *Acanthum vulgare*, produces above 100 heads, each containing from 300 to 400 seeds. Suppose we say that these thistles produce at a medium, only 80 heads, and that each contains only 300 seeds; the first crop from these would amount to 24,000. Let these be sown, and their crop will amount to 576 millions. Sow these, and their produce will be 13,824,000,000,000, or thirteen billions, eight hundred and twenty-four thousand millions: and a single crop from these, which is only the third year's growth, would amount to 331,776,000,000,000,000, or three hundred and thirty-one thousand, seven hundred and seventy-six billions; and the fourth year's growth will amount to 7962,624,000,000,000,000,000, or seven thousand nine hundred and sixty-two trillions, six hundred and twenty-four thousand billions! a progeny more than sufficient to stock not only the surface of the whole world, but of all the planets in the solar system, so that no other plant or vegetable could possibly grow, allowing but the space of one square foot for each plant. The *Carduus vulgarissimus viarum*, or common hedge-thistle, besides the almost infinite swarms of winged seeds it sends forth, spreads its roots around many yards, and throws up suckers every where, which not only produce seeds in their turn, but extend their roots, and propagate like the parent plant, and stifle and destroy all vegetation but their own.

As to thorns, the bramble, which occurs so commonly, and is so mischievous, is a sufficient proof how well the means are calculated to secure the end. The *genista*, or *spinosa vulgaris*, called by some furze, by others whins, is allowed to be one of the most mischievous shrubs on the face of the earth. Scarcely any thing can grow near it; and it is so thick set with prickles, that it is almost impossible to touch it without being wounded. It is very prolific; almost half the year it is covered with flowers, which produce pods filled with seeds. Besides, it shoots out roots far and wide, from

which suckers and young plants are continually springing up, which produce others in their turn. Where it is permitted to grow, it soon overspreads whole tracts of ground, and it is extremely difficult to clear the land of its roots where once it has got proper footing. Such provision has the just God made to fulfil the curse which he has pronounced on the earth, because of the crimes of its inhabitants.

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### THE THORN.

Of the Thorn there are several sorts, and to designate them the sacred writers employ different terms, which it is by no means easy to discriminate with accuracy and confidence. The late editor of Calmet has enumerated eight different words in the original, rendered 'thorns' or 'briers' in our version, and Dr. Harris has extended the list.

The first time that this description of plants is mentioned, is in the denunciation of punishment on the human race, in Gen. iii. 18, 'thorns and thistles;' Paul uses the same words, in Heb. vi. 8, where the last is rendered 'briers;' they are also found in Hos. x. 8. The word occurs in other places (Exod. xxii. 6; Judges viii. 6; xxviii. 24); but whether it denotes a specific kind of thorn, or is a generic name for all kinds of thorny plants, is uncertain. There is a beautiful apothegm in Prov. xv. 19:—'The way of the slothful is as a hedge of thorns: but the way of the righteous is plain.' The beautiful opposition in the original is not discoverable in the English version:—'The *narrow way* of the slothful is like *perplexed pathways* among sharp thorns: whereas, the *broad road* of the righteous is a high bank' (a causeway); that is, straight-forward, free from obstructions; the direct, conspicuous, open path. Upon this passage Mr. Taylor remarks, 1. The common course of life of these two characters answers to this comparison. 2. Their manner of going about business, or of transacting it, answers to this: an idle man always prefers the most intricate, the most oblique, and eventually, the most *thorny* measures, to accomplish his purpose: the honest man prefers the most liberal, and straight-forward.

We have already remarked that the word employed in the New Testament for *thorns*, is *akantha*. There has been some variety of opinion among critics, as to the nature of the thorn of which our Lord's crown was composed, Matt. xxvii. 29. It was without doubt of some kind of prickly shrub, though what it was cannot now be ascertained.

## THE BRAMBLE.

THE word occurs in Judges ix. 14, 15, and in Psa. lviii. 10. In the latter passage it is rendered *thorn*; in the former, *bramble*. It is armed with thorns; its branches are supple and pliant; and its leaf is of a deep green, like that of the ivy. It is certain that such a tree is required as may well denote a tyrant; one who, instead of affording shade and shelter to such as seek his protection, strips them of their property, as a bramble bush does the sheep which come near it, or lie down under its shadow. There is a passage in Holland's translation of Plutarch admirably illustrative of this subject:—'Whereupon is thought that he [Demosthenes] forsook his colors and fled; now as he made haste away, there chanced a bramble to take hold of his cassock behinde, whereat he turned back and said unto the bramble, 'Save my life, and take my ransome.'" Folio 567.

## NETTLES.

THERE are two different words rendered 'nettles' in the English Bible: They occur in (Prov. xxiv. 31, Isa. xxxiv. 13. Hos. ix. 6), and in (Job xxx. 7, Prov. xxiv. 31, Zeph. ii. 9.)

## SECTION IV.

### ONIONS, AND SIMILAR PLANTS.

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#### ONIONS.

'WHOEVER has tasted onions in Egypt,' says Hasselquist, 'must allow, that none can be had better, in any part of the world; here they are sweet, in other countries they are nauseous and strong; here they are soft whereas in the North, and other parts, they are hard, and the coats so compact, that they are hard of digestion. Hence they cannot, in any place, be eaten with less prejudice, and more satisfaction, than in Egypt. They eat them roasted, cut into four pieces, with some bits of roasted meat, and with this dish they are so delighted, that I have heard them wish they might enjoy it in Paradise. They likewise make a soup of them, cutting the onions in small pieces; this is one of the best dishes I ever ate.'

As further illustrative of the passage above referred to, we may observe, that among the vegetables used by the Egyptians for food, melons, cucumbers, and onions, are the most common. Concerning the last, he says, 'they are sweeter than in any other place in the world;' and in the streets of Cairo, they sell them ready prepared for eating.

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#### GARLICK.

THIS word occurs only in one passage of scripture (Numb. xi. 5), where it is joined with leeks and onions, and would, therefore, seem to be some plant of a similar kind.

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#### LEEKs.

THE Hebrew word which is translated, 'leek,' in Numb. xi. 5, is, as we have already noticed, a general term for herbage or grass, and has been so translated in several passages of our Bible. Referring to 1 Kings xviii. 5, Harmer says, It can hardly be allowed to mean leeks, because it is there used to express the food of horses and mules, but may very well stand for such vegetables as grew promiscuously with grass, which the succory or endive does, and this, being of a very cool nature, and much used in Egypt, he takes to be the herbage intended by the original text.

## SECTION V.

### FLAX.



THIS is a well known vegetable, upon which the industry of mankind has been exercised with the greatest success and utility. On passing a field of it, one is struck with astonishment, when he considers that this apparently insignificant plant may, by the labor and ingenuity of man, be made to assume an entirely new form and appearance, and to contribute to pleasure and health, by furnishing us with agreeable and ornamental apparel.

From time immemorial, Egypt was celebrated for the production or manufacture of flax. Wrought into inner garments, it constituted the principal dress of the inhabitants, and the priests never put on any other kind of clothing. The fine linen of Egypt is celebrated in all ancient authors, and its superior excellence is mentioned in the sacred Scripture. The manufacture of flax is still carried on in that country.

In Deut. xxvii. 11, is a prohibition of wearing a garment of flax and wool. The original word translated 'linen and woollen,' (Lev. xix. 19), is difficult of explanation. We are inclined to believe that it must rather refer to a garment of divers sorts, than to what we call 'linsey woolsey;' to one made up of patch-work, differently colored and arranged, perhaps, for pride and show, like the coat of many colors made by Jacob for his son Joseph, Gen. xxxvii. 3.

In predicting the gentleness, caution, and tenderness with which the Messiah should manage his administration, Isaiah (ch. xli. 3) happily illustrates it by a proverb: 'The bruised reed he shall not break, and the smoking flax he shall not quench.' He shall not break even a bruised reed, which snaps asunder immediately when pressed with any considerable weight; nor shall he extinguish

even the smoking flax, or the wick of a lamp, which, when it first begins to kindle, is put out by every little motion. With such kind and condescending regards to the weakest of his people, and to the first openings and symptoms of a hopeful character, shall he proceed till he send forth judgment unto victory, or till he make his righteous cause victorious. This place is quoted in Matt. xii. 20, where, by an easy metonymy, the material for the thing made, flax, is used for the wick of a lamp or taper; and that, by a synecdoche for the lamp or taper itself, which, when near going out, yields more smoke than light. 'He will not extinguish, or put out, the dying lamp.'

In Jer. xiii. 1, a *linen girdle* is mentioned; and in Ezek. xl. 3, a *measuring line of flax*.

Our version having more than once mentioned 'the fine linen of Egypt,' numbers of people have been ready to imagine, that their linen manufactures were of the most delicate kind; whereas, in truth, they were but coarse. This is proved by examining that in which their embalmed bodies are found wrapped up. So Hasselquist observes: 'The ancients have said much of the fine linen of Egypt; and many of our learned men imagine that it was so fine and precious, that we have even lost the art, and cannot make it so good. They have been induced to think so by the commendations which the Greeks have lavished on the Egyptian linen. They had good reason for doing it, for they had no flax themselves, and were unacquainted with the art of weaving: but were we to compare a piece of Holland linen with the linen in which the mummies were laid, and which is of the oldest and best manufacture of Egypt, we shall find that the fine linen of Egypt is very coarse in comparison with what is now made. The Egyptian linen was fine, and sought after by kings and princes, when Egypt was the only country that cultivated flax and knew how to use it.'

Our translators have been unfortunate in this article, says Dr. Harris, in supposing that one of the words might signify silk, and forgetting cloth made of cotton. When Joseph was arrayed in Egypt as viceroy of that country, they represent him as clothed in vestures of 'fine linen' (Gen. xli. 42), but being dubious of the meaning of the word there, they render it 'silk' in the margin. This was very unhappy: for they not only translate the word 'linen' in a multitude of other places; but, certainly, whatever the word signifies, it cannot mean silk, which was not used, we have reason to think, in those parts of the world, till long after the time of Joseph. They have gone farther, for they have made the word 'silk,' the textual translation of the Hebrew term, in Prov. xxxi. 22, which verse describes the happy effects of female Jewish industry. 'She maketh herself coverings of tapestry; her clothing is pink and purple.' They suppose, then, that the Jewish women, of not the highest rank in the time of Solomon, were clothed with vestments made of a material so precious in former times, we are told, as to be sold for its weight in gold.

## CHAPTER III.

### TREES.

WE now advance a step higher in our botanical researches, and proceed to a consideration of the dendrology of the sacred writings.

The consecration of groves to the gods of Pagan antiquity is a circumstance with which every reader of ancient history must be familiar. The custom is so ancient, that it is thought to have been antecedent to the consecration of temples and altars. This, however, is very questionable, for the *ashel* of Abraham, rendered 'grove' in the English version of the Bible, being differently expressed from the consecrated groves spoken of in the Old Testament, is rather to be understood of a single tree; perhaps the oak, or the tamarisk. But be this as it may, it is certain that the use of sacred groves, for the celebration of mysteries, is of very high antiquity, and perhaps of all others the most universal. At first there were in these groves neither temple nor altar: they were simple retreats, to which there was no access for the profane, or such as were not devoted to the service of the gods. Afterwards temples were built in these retreats, and to preserve so ancient a custom, they took care, whenever they had it in their power, to plant groves round the temples and altars, which groves were not only consecrated to the gods in honor of whom the temples had been built, but were themselves a place of sanctuary or an asylum for criminals, who fled thither for refuge.

This very prevalent custom seems to have originated in the conception, that shade and solitude gave an air of mystery and devotion to religious services; and were adapted to inspire the worshippers with a solemn and superstitious dread of those divinities which they were taught to believe were present in such sacred places. 'If you find,' says Seneca, 'a grove thick set with ancient oaks, that have shot up to a vast height, the tallness of the wood, the retirement of the place, and the pleasantness of the shade, immediately make you think it to be the residence of some god.' The prophet also intimates this to have been the reason: 'They sacrifice upon the tops of the mountains, and burn incense upon the hills, under oaks and poplars, and elms, *because the shadow thereof is good*,' Hos. iv. 13.

As these groves were the more immediate scenes of these impure rites which formed the leading feature of the systems of idolatrous worship, the Jewish legislator prohibited his people from planting trees around or near the altar of God: 'Thou shalt not

plant thee a grove of any trees, near unto the altar of the Lord thy God,' Deut. xvi. 21. From their proneness to imitate the customs of the surrounding nations, however, the Jewish people became guilty of sacrificing in high places and in consecrated groves : and one of their kings carried his impiety so far as to plant one of these groves at Jerusalem, 2 Kings xxi. 7.

Landseer has attempted to show, that the word rendered '*groves*' in our translation of the Scriptures, means rather a kind of orrery or armillary machine used for purposes of divination, which he supposes to have been about the height of a man.

It is certain that the word translated '*groves*' cannot *always* be interpreted to mean a *grove of trees*, since we read of setting up groves 'under every green tree' (2 Kings, xvii. 8, &c.) ; nor can it always be strictly taken as an *image*, for we also read that the people 'made them molten images, and made a *grove*, and worshipped all the host of heaven,' and used divination, ver. 16, 17. (See also Judges vi. 25, 26, 28, 30). Hence Selden supposes, that the term was used for the images worshipped in the groves, especially As-tarte or Venus. Others have conjectured that as by *Baal* was meant the *sun*, so by *ashre* or '*groves*' was meant the *moon*, worshipped as the 'queen of heaven.'



## SECTION I.

### FRUIT TREES.

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#### THE APPLE, OR CITRON TREE.

THE apple tree, is, in the several passages where it is spoken of, represented as one of the most noble trees in the garden of nature, emitting a delightful fragrance, and bearing fruit of a most delicious kind. 'As the apple tree among the trees of the wood, so is my beloved among the sons. I sat down under his shadow with great delight, and his fruit was sweet to my taste,' Cant. ii. 3. 'I will go up to the palm tree, I will take hold of the boughs thereof; now also thy breast shall be as the clusters of the vine, and the smell of thy nose like apples,' chap. vii. 8. In the following passage it is classed with those trees which are peculiarly beautiful and valuable: 'The vine is dried up, and the fig tree languisheth; the pomegranate tree, the palm tree also, and the apple tree, even all the trees of the field are withered: because joy is withered away from the sons of men,' Joel i. 12.

There are six places in which the word occurs; and from them we learn that it was thought the noblest of the trees of the wood, and that its fruit was very sweet or pleasant (Cant. ii. 3,) of the color of gold (Prov. xxv. 11,) extremely fragrant (Cant. viii. 8,) and proper for those to smell who were ready to faint, chap. ii. 5. The fifth and sixth passages (Cant. vii. 5, Joel, i. 12,) contain nothing particular, but the description the other four give, perfectly answers to the citron-tree and its fruit.

To the manner of serving up apples in his court, Solomon seems to refer, when he says, 'A word fitly spoken is like apples [citrons] of gold in pictures of silver,' Prov. xxv. 11: whether as Maimonides supposes, wrought with open work like baskets, or curiously chased, it is not material to determine.

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#### THE ALMOND TREE.

THE almond tree is too well known to need a description here. It flowers in the month of January, or February, and by March brings its fruits to maturity. To this there is a reference in the vi-

sion of Jeremiah (ch. i. 11, 12); 'The word of the Lord came unto me, saying, Jeremiah, what seest thou? And I said, I see a rod of an almond tree. Then said the Lord unto me, Thou hast well seen, for I am hastening or watching over my word to fulfil it.' In this passage there is one of those *paranomasias* so frequent in the Hebrew Scriptures, but which it is impossible to preserve in any translation.

It is probable, as Parkhurst has suggested, that the chiefs of the tribes bore each an almond rod, as emblematical of their vigilance (Numb. xvii. 6—8); the dead almond rod of Aaron, which afterwards blossomed and bore fruit, was a very proper emblem of Him who first rose from the dead.

Solomon has beautifully described the approach and appearance of old age, according to the generality of interpreters, in the expression, 'The almond tree shall flourish' (Eccl. xii. 5)—its *white* blossoms appearing so soon, and presenting themselves on the *bare* branches; but it must be admitted that there is considerable force in what Mr. Harmer has urged against this interpretation. Gray hairs, he remarks, are quite consistent with vigorous and unailing old age; besides which, it is very untoward to suppose that the appearance of these blossoms, which marks out the finishing of the winter, the approach of the spring, the pleasantest time of the year, and exhibits the tree in all its beauty, should be used to represent the approach of the winter of human life, followed by death, and a disappearing from the land of the living. Surely the one, he continues, can hardly be intended to be descriptive of the other: and, if not, some other explanation must be sought for; though this one seems very early to have obtained, if we may judge from the translation of the Septuagint.

We have already seen that the Hebrew word signifies, literally, 'a watcher,' and that it is used metaphorically of the almond tree. Admitting this, Mr. Harmer suggests that the clause may naturally be interpreted, by explaining it of the frequency of the attendance of physicians, who appear oftenest at court, and flourish most there when the prince is in a very declining state, drawing near to death. See 2 Chronicles xvi. 21. The functions of a physician, with regard to the body, and of a watchman with respect to a palace, are not unlike: they appear from time to time at court; but much more observable as well as frequently, in seasons of apprehension and danger, than at other times.

## THE CHESNUT TREE.

It is difficult to conceive the reasons which induced the English translators to render the Hebrew *aumux* 'chesnut tree.' It occurs only in Gen. xxx. 37, and Ezek. xxxi. 8: in both places the Vulgate understand the 'plane tree,' as do the LXX. in the former passage, but in the latter they have the 'fir.' The majority of interpreters concur with the Latin version, which is certainly very suitable to the sense of the passage in the prophet, which requires a tree possessing extensive branches, and producing a considerable shade; qualities for which the plane tree has ever been celebrated.

## THE FIG TREE.



The fig tree is very common in Palestine and the East, and it flourishes with the greatest luxuriance in those barren and stony situations where little else will grow.

Figs are of two sorts, the 'boccore,' and the 'kermouse.' The boccore, or early fig, is produced in June, though the kermouse, the fig properly so called, which is preserved, and made up into cakes, is rarely ripe before August. There is also a long dark colored kermouse, that sometimes hangs upon the trees all the winter. For these figs generally hang a long time upon the tree before they drop off; whereas the boccores drop as soon as they are ripe, and, according to the beautiful allusion of the prophet Nahum, 'fall into the mouth of the eater, upon being shaken,' ch. iii. 12. Dr. Shaw, to whom we are indebted for this information, remarks, that these trees do not properly blossom, or send out flowers, as we render Hab. iii. 17. They may rather be said to *shoot out their*

*fruit*, which they do, like so many little buttons, with their flowers, small and imperfect as they are, inclosed within them.

When this intelligent traveller visited Palestine, in the latter end of March, the boccore was far from being in a state of maturity; for, in the scripture expression, 'the time of figs was not yet' (Mark xi. 13,) or not till the middle or latter end of June. The 'time' here mentioned, is supposed by some authors, to be the third year, in which the fruit of a particular kind of fig tree is said to come to perfection. But this species, if there be any such, needs to be further known and described, before any argument can be founded upon it. Dionysius Syrus, as he is translated by Dr. Lof-tus, is more to the purpose: 'it was not the time of figs,' he remarks, because it was the month Nisan, when trees yielded blossoms, and not fruit. It frequently happens in Barbary, however, and it need not be doubted in the warmer climate of Palestine, that, according to the quality of the preceding season, some of the more forward and vigorous trees will now and then yield a few ripe figs, six weeks or more before the full season. Something like this may be alluded to by the prophet Hosea, when he says he 'saw their fathers as the first ripe in the fig tree at her first time' (ch. ix. 10;) and by Isaiah, who, speaking of the beauty of Samaria, and her rapid declension, says, she 'shall be a fading flower, and as the hasty fruit before the summer; which, when he that looketh upon it seeth, while it is yet in his hand, he eateth it up,' ch. xxviii. 4.

When the boccore draws near to perfection, then the kermouse, the summer fig, or caricæ, begin to be formed, though they rarely ripen before August; at which time there appears a third crop, or the winter fig, as it may be called. This is usually of a much longer shape and darker complexion than the kermouse, hanging and ripening on the tree, even after the leaves are shed; and, provided the winter prove mild and temperate, is gathered as a delicious morsel in the spring. We learn from Pliny, that the fig tree was bífera, or bore two crops of figs; namely, the boccore, as we may imagine, and the kermouse; though what he relates afterwards, should intimate that there was also a winter crop.

It is well known, that the fruit of these prolific trees always precedes the leaves; and consequently, when our Saviour *saw one of them* in full vigor *having leaves* (Mark xi. 13), he might, according to the common course of nature, very justly 'look for fruit;' and haply find some boccores, if not some winter figs, likewise, upon it. But the difficulties connected with the narration of this transaction, will not allow of its dismissal in this summary manner. We say, in the *narration*, for we apprehend that the remark of Dr. Shaw is quite satisfactory as to the reasonableness of our Lord's conduct on the occasion, notwithstanding the multiplied objections which ignorance and irreligion have urged against it.

We now look at the construction of the passage, which has occasioned so much embarrassment to commentators, and has given rise to more discussion, perhaps, than any other narrative in the New

Testament. In our translation, the passage stands thus, which is strictly according to the order of the words in the original text : 'And on the morrow, when they were come from Bethany, he (Jesus) was hungry: and seeing a fig tree afar off, having leaves, he came, if haply he might find anything thereon: and when he came to it, he found nothing but leaves; for the time of figs was not yet. And Jesus said unto it, "No man eat fruit of thee hereafter for ever,"' Mark xi. 12—14. Here the whole difficulty results from the connexion of the two last clauses of the 13th verse: 'And when he came to it he found nothing but leaves—for the time of figs was not yet' for the declaration, that it was not yet fig harvest, cannot be (as the order of the words seem to import) the *reason* why there was nothing but leaves on the tree; because, as we have seen, the fig is of that tribe of vegetables on which the fruit appears before the leaf. Certainly, fruit, says Mr. Weston, might be expected of a tree whose leaves were distinguished afar off, and whose fruit, if it bore any, preceded the leaves. If the words had been, 'He found nothing but green figs, for it was not the time of ripe fruit,' says Campbell, we should have justly concluded that the latter clause was meant as the reason of what is affirmed in the former, but, as they stand, they do not admit this interpretation.

All will be clear, however, if we consider the former of these clauses as parenthetical, and admit such a sort of *trajectio* as is not unfrequent in the ancient languages, though in translating into modern ones a transposition ought to be adopted, to adapt such passages to the genius of those languages; and such is here employed by Dr. Campbell. The sense of the passage will then be as follows: 'He came to see if he might find anything thereon (for it was not yet the time to gather figs); but he found leaves only; and he said,' &c. Similar inversions and trajections have been pointed out by commentators in various other parts of the New and Old Testaments, and Campbell particularly notices one in this very gospel (ch. xvi. 3, 4): 'They said, Who shall roll us away the stone? and when they looked, the stone was rolled away, for it was very great'—that is, 'They said, who shall roll us away the stone, for it was very great,' &c.

The spiritual application of this transaction to the case of the Jews, is sufficiently obvious.

In the East, the fig tree grows to a considerable size; so large, indeed, as to afford the wearied traveller a convenient shelter from the rays of the sun. Hasselquist says, that when travelling from Tiberias to Nazareth, they refreshed themselves under the shade of one of these trees, under which was a well, where a shepherd and his herd had their rendezvous, but without either tent or hut. So Moryson, 'Coming to a little shade of fig trees, near Tripoli, in Syria, we rested there the heat of the day, and fed upon such victuals as we had.' These extracts will remind the scripture reader of 1 Kings iv. 25; Mic. iv. 4; Zech. iii. 10; and John i. 48, where the friendly shade of this tree is evidently referred to.

## THE SYCAMORE TREE.

THIS curious tree seems to partake of the nature of two distinct species, the mulberry and the fig, the former in its leaf, and the latter in its fruit. The Sycamore is thus described by Norden: 'I shall remark, that they have in Egypt divers sorts of figs; but if there is any difference between them, a particular kind differs still more. I mean that which the sycamore bears. It was upon a tree of this sort that Zaccheus got up, to see our Saviour pass through Jericho. This sycamore is of the height of a beech, and bears its fruit in a manner quite different from other trees. It has them on the trunk itself, which shoots out little sprigs, in form of a grape-stalk, at the end of which grows the fruit, close to one another, most like bunches of grapes. The tree is always green, and bears fruit several times in the year, without observing any certain seasons, for I have seen some sycamores which had fruit two months after others. The fruit has the figure and smell of real figs; but is inferior to them in the taste, having a disgustful sweetness. Its color is a yellow, inclining to an okre, shadowed by a flesh color; in the inside it resembles the common fig, excepting that it has a blackish coloring, with yellow spots. This sort of tree is pretty common in Egypt. The people, for the greater part, live on its fruit.'

From 1 Kings x. 27; 1 Chron. xxvii. 28; and 2 Chron. i. 15, it is evident, that this tree was pretty common in Palestine, as well as in Egypt; and from its being joined with the vines in Psalm lxxviii. 47, as well as from the circumstance of David appointing a particular officer to superintend plantations of them, it seems to have been as much valued in ancient as it is in modern times. From Isa. ix. 10, we find that the timber of the sycamore was used in the construction of buildings; and, notwithstanding its porous and spongy appearance, it was, as we learn from Dr. Shaw, of extreme durability. Describing the catacombs and mummies of Egypt, this intelligent writer states that he found both the mummy chests, and the little square boxes, containing various figures, which are placed at the feet of each mummy, to be made of sycamore wood, and thus preserved entire and incorrupted for at least three thousand years.

In Amos vii. 14, there is a reference, no doubt, to the manner in which these trees are cultivated, by scraping or making incisions in the fruit.

In the passage above cited from Norden, that traveller adverts to the circumstance of Zaccheus climbing up into the sycamore for the purpose of witnessing our Lord pass through Jericho (Luke xix. 4); and Mr. Bloomfield remarks, that this mode of viewing an object seems to have been not unfrequent, insomuch that it appears to have given rise to a proverbial expression, which he cites from Libanius.

The sycamore strikes its large diverging roots deep into the soil;

and on this account, says Paxton, our Lord alludes to it as the most difficult to be rooted up and transferred to another situation. 'If ye had faith as a grain of mustard seed, ye might say unto this sycamore tree, Be thou plucked up by the root, and be thou planted in the sea, and it should obey you,' Luke xvii 5. The extreme difficulty with which this tree is transferred from its native spot to another situation, give the words of our Lord a peculiar force and beauty. The stronger and more diverging the root of a tree, the more difficult it must be to pluck it up, and insert it again so as to make it strike root and grow; but far more difficult still to plant it in the sea, where the soil is so far below the surface, and where the restless billows are continually tossing it from one side to another; yet, says our Lord, a task no less difficult than this to be accomplished, can the man of genuine faith perform with a word; for with God nothing is impossible, nothing difficult or laborious. In the parallel passage (Matt. xvii. 20,) the hyperbole is varied, a mountain being substituted for the sycamore-tree. The passage is thus paraphrased by Rosenmuller: So long as you trust in God and me, and are not sufficient in self-reliance, you may accomplish the most arduous labors, undertaken for the purpose of furthering my religion,

## THE PALM TREE.



THIS tree is named, from its straight, upright growth, for which it seems more remarkable than any other tree. It sometimes rises to the height of a hundred feet, and is one of the most beautiful trees of the vegetable kingdom. The stalks are generally full of rugged knots, which are the vestiges of the decayed leaves: for the trunk is not solid like other trees, but its centre is filled with pith, round which is a tough bark full of strong fibres when young, which, as the tree grows old, hardens and becomes ligenous. To this bark the leaves are closely joined, which in the centre rise erect, but after they are advanced above the vagina that surrounds them, they expand very wide on every side of the stem, and as the older leaves decay, the stalk advances in height. The leaves, when the tree has grown to a size for bearing fruit, are six or eight feet long; are very broad when spread out, and are used for covering the tops of houses, and similar purposes.



The fruit which is called 'date,' grows below the leaves in clusters; and is of a sweet and agreeable taste. A considerable part of the inhabitants of Egypt, of Arabia, and of Persia, subsist almost entirely on its fruit. They boast also of its medicinal virtues. Their camels feed upon the date stone. From the leaves they make couches, baskets, bags, mats, and brushes; from the branches, cages for their poultry, and fences for their gardens; from the fibres of the boughs, thread, ropes, and rigging; from the sap is prepared a spirituous liquor; and the body of the tree furnishes fuel: it is even said, that from one variety of the palm tree, meal has been extracted, which is found among the fibres of the trunk, and has been used for food.

Several parts of the Holy Land, no less than of Idumæa, that lay contiguous to it, are described by the ancients to have abounded with date trees. Judea, particularly, is typified in several coins of Vespasian, by a disconsolate woman sitting under a palm tree. It may be presumed, therefore, that the palm tree was formerly much cultivated in the Holy Land.

In Deut. xxxiv. 3, Jericho is called 'the city of palm trees;' because, as Josephus, Strabo, and Pliny have remarked, it anciently abounded with them: and Dr. Shaw states that there are several of them yet at Jericho, where there is the convenience they require of being often watered; where likewise the climate is warm, and the soil sandy, or such as they thrive and delight in. At Jerusalem, Sichem, and other places to the northward, however, Dr. Shaw states that he rarely saw above two or three of them together; and even these, as their fruit rarely or ever comes to maturity, are of no further service, than (like the palm tree of Deborah) to shade the retreats or sanctuaries of their Sheikhs, as they might formerly have been sufficient to supply the solemn processions with branches. See John xii. 13. From the present condition and quality of the palm trees in this part of the Holy Land, Dr. Shaw concludes that they never were either numerous or fruitful here, and that therefore the opinion of Reland and others, that Phœnice is the same with 'a country of date trees' does not appear probable; for if such a useful and beneficial plant had ever been cultivated there to advantage, it would have still continued to be cultivated, as in Egypt and Barbary.

It is a singular fact, that these trees are male and female, and that the fruit which is produced by the latter, will be dry and insipid without a previous communication with the former.

The palm-tree arrives at its greatest vigor about thirty years after transplantation, and continues so seventy years afterwards, bearing yearly fifteen or twenty clusters of dates, each of them weighing fifteen or twenty pounds. After this period, it begins gradually to decline, and usually falls about the latter end of its second century. 'To be exalted,' or 'to flourish like the palm tree,' are as just and proper expressions, suitable to the nature of this plant, as 'to spread abroad like a cedar,' Psal. xcii. 12.

The root of the palm tree produces a great number of suckers, which, spreading upward, form a kind of forest. It was under a little wood of this kind, as Calmet thinks, that the prophetess Deborah dwelt between Ramah and Bethel, Judg. iv. 5. And probably to this multiplication of the palm tree, as he suggests, the prophet alludes, when he says, 'The righteous shall flourish like a palm tree,' (Psal. xcii. 12. comp. Psal. i. 3,) rather than to its towering height, as Dr. Shaw supposes.

The palm is much fonder of water than many other trees of the forest, and this will account for its flourishing so much better in some places than in others. When Moses and his people, on their way, to the promised land arrived at Elim, they found twelve wells of water by the side of seventy palm trees, Exod. xv. 27.

The prophet Jeremiah, describing, in a fine strain of irony, the idols of the heathen, says, 'they are upright as the palm tree,' (chap. ix. 5,) which Calmet takes to be an allusion to their shape, remarking, from Diodorus Siculus, that the ancients, before the art of carving was carried to perfection, made their images all of a thickness, straight, having their hands hanging down, and close to their sides, the legs joined together, the eyes shut, with a very perpendicular attitude, and not unlike the body of a palm tree. Such are the figures of those ancient Egyptian statues that still remain.

The straight and lofty growth of the palm tree, its longevity and great fecundity, the permanency and perpetual flourishing of its leaves, and their form, resembling the solar rays, make it, says Mr. Parkhurst, a very proper emblem of the natural, and thence of the Divine, light. Hence in the holy place or sanctuary of the temple (the emblem of Christ's body) palm trees were engraved on the walls and doors between the coupled cherubs, 1 Kings vi. 29, 32, 35. Ezek. xli. 18, 19, 20, 25, 26. Hence, at the feast of Tabernacles branches of palm trees were to be used, among others, in making their booths. Comp. Lev. xxiii. 30. Neh. viii. 15. Palm branches were also used as emblems of victory, both by believers and idolaters. Believers, by bearing palm branches after a victory, or in triumph, meant to acknowledge the supreme Author of their success and prosperity, and to carry on their thoughts to the *Divine Light*, the great Conqueror over sin and death. Comp. 1 Mac. xiii. 51. 2 Mac. x. 7. John xii. 13. Rev. vii. 9.

In Cant. vii. 7, the stature of the bride is compared to a palm tree, which conveys a pleasing idea of her gracefulness and beauty.

It is probable that Tamar, (Ezek. xlvii. 19, &c.) or Tadmor, (1 Kings ix. 18) built in the desert by Solomon, and afterwards called Palmyra by the Greeks, obtained its name from the number of palm trees which grew about it. Mr. Parkhurst has a long and interesting article on the subject, to which the reader is referred,

## THE OLIVE TREE.



THE Apostle Paul distinguishes olive trees as of two kinds (Rom xi. 24.); the wild or natural, and those under care and culture. The cultivated olive tree is of a moderate height, its trunk knotty, its bark smooth and ash-colored, and its wood solid and of a yellowish color. The leaves are oblong, almost like those of the willow, of a green color, dark on the upper side, and white beneath. In the month of June it puts out white flowers that grow in bunches. Each flower is of one piece, widening upwards, and dividing into four parts. The fruit is oblong and plump; first green, then pale, and when quite ripe, black. The wild olive is smaller in all its parts.

It does not appear that Egypt was ever remarkable for the cultivation of this tree. They abounded, however, in Syria, and are of better quality there than in any part of the Levant.

The scripture references to the olive tree are frequent. The royal Psalmist and some of the sacred writers speak with rapture of the green olive tree.

So, in the fifty-second Psalm, David describes a wicked man, as soon to wither away and disappear; while he himself should be like a young vigorous olive tree, which had long to live and to flourish. The beauty of the olive tree, is alluded to in other passages of scripture, and consisted in the spread of its branches, and not in its color: 'His branches shall spread, and his beauty shall be as the olive tree,' Hos. xiv. 6. When the Psalmist says, 'I shall be anointed with green (Eng. tr. *fresh*) oil' (Ps. xcii. 10), where there is the same word in the original, we cannot suppose that he means oil of a green color. The word rather means precious, fragrant oil, such as that used by princes in times of prosperity: fragrant as a field, which the Lord has blessed, a flowery field, in all its verdure, to the smell of which Isaac compared the smell of the perfumed clothes Jacob had on when his father blessed him, Gen. xxvii. 27. It is natural to suppose that most, if not all, the oil that was used for the purpose of

anointing, was rendered more or less fragrant by the infusion of odoriferous plants or substances: otherwise it would have hardly answered the purpose of its adoption in those hot climates. On this account it became highly necessary to the enjoyment of life: and hence the prophet threatened Israel, that they should tread olives but not anoint themselves with oil, Mic. vi. 15.

The olive tree, from the effect of its oil, in supplying, relaxing, and preventing or mitigating pain, seems to have been adopted from the earliest period, as an emblem of the benignity of the Divine Nature; and particularly after the fall, to have represented the goodness and placability of God through Christ; and of the blessed influences of the Holy Spirit, in mollifying and healing our disordered nature, and in destroying or expelling from it the poison of the old (spiritual) serpent, even as oil-olive does that of the natural serpent or viper. Hence we see a peculiar propriety in the olive-leaf or branch being chosen by Divine Providence as a *sign* to Noah, of the abatement of the deluge, (Gen. viii. 11); and may also account for olive branches being ordered as one of the materials of the booths at the feast of Tabernacles (Neh. viii. 15), whence they became the emblems of peace to various and distant nations. Captain Cook found that green branches carried in the hand, or stuck in the ground, were thus universally understood by all the islanders, even in the South Seas.

In the sacred writings, olives are sometimes represented as beaten off the trees (Deut. xxiv. 20,) and at other times as shaken off (Isa. xvii. 6; ch. xxiv. 13); this, however, does not indicate an improvement made in aftertimes on the original mode of gathering them, nor different methods of procedure by different people, in the same age and country, who possessed olive yards; but rather expresses the difference between the gathering the main crops by the owners, and the way in which the poor collected the few olive berries that were left, and which, by the law, they were permitted to take.

The usual method of extracting the oil from olives, appears to have been by treading them with the feet, Deut. xxxiii. 24, comp. with Mic. vi. 15. Whether any previous preparation were necessary is uncertain: at present, mills are used for this purpose.

By what an apt and awful similitude does Paul represent God's rejection of the Jews and admission of the Heathen, by the boughs of an olive being lopped off, and the scion of a young olive ingrafted into the old tree (Rom. xi. 17, &c.); and continuing the same imagery, how strictly does he caution the Gentiles against insolently exulting over the mutilated branches, and cherishing the vain conceit that the boughs were lopped off merely that they might be ingrafted; for, if God spared not the native branches, they had greater reason to fear lest he would not spare them: that they should remember that the Jews through their wilful disbelief of Christianity were cut off, and that they, the Gentiles, if they disgraced their religion, would in like manner forfeit the Divine favor,

and their present flourishing branches be also cut down. To inspire the Gentile Christians with humility, he concludes with assuring them that the Jewish nation, though they had experienced this severity of God, as he calls it, were not totally forsaken of the Almighty; that the branches, though cut down, and robbed of their ancient honors, were not abandoned to perish; when the Jews returned from their infidelity they would be ingrafted; an Omnipotent hand was still able to reinsert them into their original stock.

From 1 Kings vi. 23, *et seq.* we learn, that olive wood was used in the building of the temple, and that, too, in some of its most tasteful and decorative parts. It seems still to be regarded as 'a fancy wood' in the East, for Lady Mary Wortley Montague states, that she found the winter apartments of the Rahya's palace, at Adrianople, wainscotted with inlaid work of mother of pearl, ivory of different colors, and *olive wood*, like the little boxes brought thence.

## THE POMEGRANATE.

THE Pomegraaate, ripens in Barbary, in the month of August. It was formerly one of the most delicate fruits of the East (Numb. xiii. 23; ch. xx. 5; Deut. viii. 8; Cant. iv. 13); the orange, the apricot, the peach, and the nectarine, not having made their progress so early to the westward. The following is Dr. Woodville's description of the tree.

'It rises several feet in height, is covered with a brownish bark, and divided into many small branches, which are armed with spines; the leaves are oblong, or lance-shaped, pointed, veined, of a deep green color, and placed upon short foot-stalks; the flowers are large, of a rich scarlet color, and stand at the end of the young branches. The fruit is about the size of an orange, and crowned with the fine teeth of the calyx: the rind is thick and tough, externally reddish, internally yellowish, filled with a red succulent pulp, contained in transparent cellular membranes, and included in nine cells, within which numerous oblong angular seeds are also lodged. This shrubby tree is a native of Spain, Italy, Barbary, &c. Some of them rise to the height of eighteen or twenty feet.'

The pomegranate is chiefly valued for its fruit, which has the general qualities of other summer fruits, allaying heat and quenching thirst. The high estimation in which it was held by the people of Israel may be inferred from its being one of the three kinds of fruit brought by the spies from Eshol to Moses and the congregation in wilderness (Numb. xiii. 23, chap. xx. 5), and from its being specified by that rebellious people as one of the greatest luxuries which they enjoyed in Egypt, and the want of which they felt so severely in the sandy desert. The pomegranate, classed by

Moses with wheat and barley, wines and figs, olive oil and honey, was, in his account, one principal recommendation of the promised land, Deut. viii. 8.

In Cant. viii. 2, the bride proposes to make for her beloved a beverage of wine mixed with the juice of pomegranates: 'I would cause thee to drink of spiced wine, of the juice of my pomegranate.' Russel observes that there are three kinds of pomegranates at Aleppo: the sour, the sweet, and another between the two; and that the inhabitants give a grateful acidity to their sauces, by pomegranate or lemon-juice. Mr. Harmer thinks it highly probable, that in the time of the most remote antiquity, pomegranate-juice was used in those countries where lemon-juice is now used, with their meat, and in their drinks; and that it was not till afterwards that lemons came among them. Otherwise he is at a loss to account for the mention of pomegranates in describing the fruitfulness of the Holy Land, Deut. viii. 7, 8; Numb. xx. 5. They would not now, he thinks, occur in such descriptions; the juice of lemons and oranges having almost superseded the use of that of pomegranates.

The Hebrew and Greek names of this tree being expressive of the strong projection or reflection of light, either from the fruit, or from the star-like flower, at its extremity, Parkhurst conceives that those brazen pomegranates which Solomon placed in the net-work over the crowns on the top of the two brazen pillars (1 Kings vii. 18, 20, 42; 2 Chron. iv. 13; Jer. lii. 22, 23), were intended to represent the stars strongly reflecting light on the earth and planets. So the artificial pomegranates ordered to be fixed on the skirt of Aaron's robe (Exod. xxviii. 33, 34) were, he thinks, to represent those spiritual stars, even the children of God, who, by a light derived from their great High Priest, shine as lights or luminaries in the world (Phil. ii. 15. comp. Matt. v. 14, 16; Eph. v. 8; 1 Thess. v. 5; Rev. i. 16—20), and who, like the bells which accompanied the pomegranates, are continually to proclaim the perfection of Him who called them out of darkness into his marvellous light, 1 Pet. ii. 2.

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## THE VINE.

Of this valuable and well known plant there are several species, and there are many references to it in the sacred writings. It grew plentifully in Palestine, and was particularly fine in some of the districts. The grapes of Egypt being particularly small, we may easily conceive of the surprise which was occasioned to the Israelites by witnessing the bunch of grapes brought by the spies to the camp, from the valley of Eschol, Numb. xiii. 24. The account of Moses, however, is confirmed by the testimony of several travellers. Doubdan assures us, that in the valley of Eschol were

bunches of grapes of ten and twelve pounds. Forster tells us, that he was informed by a Religious, who had lived many years in Palestine, that there were bunches of grapes in the valley of Hebron, so large that two men could scarcely carry one. Comp. Numb. xiii. 24. And Rosenmuller says, 'Though the Mahomedan religion does not favor the cultivation of the vine, there is no want of vineyards in Palestine. Besides the large quantities of grapes and raisins which are daily sent to the markets of Jerusalem and other neighboring places, Hebron alone, in the first half of the eighteenth century, annually sent three hundred camel loads, that is, nearly three hundred thousand weight of grape juice, or honey of raisins, to Egypt.'

To show the abundance of vines which should fall to the lot of Judah in the partition of the promised land, Jacob says of his tribe, that he shall be found—

Binding his colt to the vine,  
And to the choice vine, the foal of his ass.  
Washing his garments in wine,  
His clothes in the blood of the grape.

Gen. xlix. 11.

It has been shown by Paxton, that in some parts of Persia, it was formerly their custom to turn the cattle into the vineyards after the vintage, to browse on the vines, some of which are so large that a man can hardly compass their trunk in his arms. These facts clearly show, that according to the prediction of Jacob, the ass might be securely bound to the vine, and without damaging the tree by browsing on its leaves and branches. The same custom appears, by the narratives of several travellers, to have generally prevailed in Lesser Asia. Chandler observed, that in the vineyards around Smyrna, the leaves of the vines were decayed or stripped by the camels, or herds of goats, which are permitted to browse upon them, after the vintage. When he left Smyrna on the 30th September, the vineyards were already bare; but when he arrived at Phygella, on the 5th or 6th of October, he found its territory still green with vines; which is a proof that the vineyards at Smyrna must have been stripped by the cattle, which delight to feed upon the foliage.

This custom furnishes a satisfactory reason for a regulation in the laws of Moses, the meaning of which has been very imperfectly understood. A man was prohibited from introducing his beast into the vineyard of his neighbor. The reason was, it was destructive to the vineyard before the fruit was gathered; and after the vintage, it was still a serious injury, because it deprived the owner of the fodder which was most grateful to his flocks and herds, and perhaps absolutely requisite for their subsistence during the winter. These things considered, we discern in this enactment, the justice, wisdom, and kindness of the great Legislator.

The law enjoined that he who planted a vine should not eat of the produce of it before the fifth year, Lev. xix. 24, 25. Nor did they gather their grapes on the seventh year: the fruit was then left

for the poor, the orphan, and the stranger. A traveller was permitted to gather and eat grapes in a vineyard, as he passed along, but was not permitted to carry any away. Deut. xxiii. 24.

In John xv. our Lord declares himself to be the 'true vine.' Doddridge has supposed that the idea might be suggested by the sight of a vine, either from a window, or in some court by the side of the house; but this is controverted by Harmer, who remarks, that there were no gardens in Jerusalem, and that it is not likely there were vines about the sides of the houses. Harmer's assertion, however, is set aside by Dr. Russell, who states that it is very common to *cover the stairs* leading to the upper apartments of the harem *with vines*. This fully explains the beautiful metaphor in Psalm cxxviii.—'Thy wife shall be as a fruitful vine by the sides of thine house.'—with which Mr. Harmer is so much embarrassed. But whether such a vine gave rise to our Saviour's discourse, is a matter of great doubt.

In the TEMPLE at Jerusalem, above and around the gate seventy cubits high, which led from the porch to the holy place, a richly carved vine was extended, as a border and decoration. The branches, tendrils, and leaves, were of the finest gold: the stalks of the bunches were of the length of the human form, and the bunches hanging upon them were of costly jewels. Herod first placed it there; rich and patriotic Jews from time to time added to its embellishment, one contributing a new grape, another a leaf, and a third even a bunch of the same precious materials. If to compute its value at more than 12,000,000 of dollars be an exaggeration, it is nevertheless indisputable that this vine must have had an uncommon importance and a sacred meaning in the eyes of the Jews. With what majestic splendor must it have likewise appeared in the evening, when it was illuminated by tapers!

If then Jesus in the evening, after having celebrated the Passover, again betook himself to the temple with his disciples, what is more natural, than, as they wandered in it to and fro, that above everything this vine, blazing with gold and jewels, should have attracted their attention;—that, rivetted by the gorgeous magnificence of the sight, they were absorbed in wonder and contemplation respecting the real import of this work of art? Let us now conceive, that Jesus at *this* moment, referring to *this* vine, said to his disciples, 'I am *the true vine*'—how correct and striking must his words *then* have appeared!—How clearly and determinately must *then* the import of them have been seen!

The Jews accounted the vine the most noble of plants, and a type of all that was excellent, powerful, fruitful, and fortunate. The prophets, therefore, compared the Jewish nation and the Jewish church to a great vine, adorned with beautiful fruit, planted, tended, and guarded by God, Jer. ii. 21. Ezek. xix. 10 *Seq.* Psal. lxxx. 9, 15 *Seq.* God was the DRESSER OF THE VINEYARD, Israel was the VINEYARD and VINE, Isa. v. 1 *Seq.* xxvii. 2 *Seq.* Hos. x. 1.—every true Israelite, especially the heads and chiefs of the people, were the



*branches*, Isa. xvi. 8. Jer. v. 10.—the might and power of the nation were the full swelling *bunches*. The basis of the metaphor was ever the idea, that 'Israel is the first, the most holy nation on the earth,—that God himself is the founder and protector of it.'

The curiously-wrought and splendid vine, above described, which Herod introduced into the temple, was a symbol of this peculiar, proximate, and joyful relation in which God stood to Israel. The patriotic Jews, as they looked at it, thought with joy and pride of the high dignity and pre-eminence of the people. *To go out and to enter under the vine*, was a phrase, by which they denoted a peaceful, fortunate, and contented life. Hence this ornament, extended over the entrance to the holy place, was as striking and full of meaning, as it was edifying to the Jews: hence each contributed his own to increase its magnificence, and thus authenticate himself as a worthy member of this holy and glorious nation.

Jesus having thus depicted himself as the individual who was prefigured by this vine, the ideas, which he would express by this parable, could not have been misunderstood.

This parable, therefore, more immediately concerns THE APOSTLES. Jesus does not merely represent himself under the metaphor of a vine, in the more confined sense of A TEACHER, but in the more exalted and comprehensive one of THE MESSIAH sent from heaven TO FOUND A NEW KINGDOM OF GOD. He considers his apostles as THE BRANCHES in Him,—not merely as DISCIPLES and FRIENDS, but as DEPUTIES and ASSISTANTS chosen and called by Him, TO FOUND AND EXTEND HIS KINGDOM. THE CONNEXION which he would maintain between himself and them, consists not merely in LOVE and FRIENDSHIP, but in THE TRUE EXECUTION OF HIS COMMANDS, grounded on a faith in his exalted nature and dignity. The FRUITS which he expects from them, are not merely FAITH and VIRTUE, which are the concerns of all Christians, but important SERVICES IN THE EXTENSION OF CHRISTIANITY. And he incites them to perform them by a promise of Divine grace and assistance.

The expression of 'sitting every man under his own vine,' (1 Kings iv. 25. Mic. iv. 4) probably alludes to the delightful Eastern arbors, which were partly composed of vines. Norden speaks of vine-arbors as being common in the Egyptian gardens; and the Prænestine pavement in Shaw's Travels, gives us the figure of an ancient one. The expression is intended to refer to a time of public tranquillity and of profound peace.

In the passage of Isaiah to which we just now referred, there is mention made of a wild grape, which requires notice: 'And he looked that it should bring forth grapes, and it brought forth wild grapes,' Isa. v. 2. Jeremiah uses the same image, and applies it to the same purpose, in an elegant paraphrase of this part of Isaiah's parable, in his flowing and plaintive manner—'But I planted thee a sorer, a scion perfectly genuine; how then art thou changed, and become to me the degenerate shoots of the strange vine!' Chap. ii. 21. By these wild grapes, or poisonous berries, we must under-

stand not merely useless, unprofitable grapes, such as wild grapes ; but grapes offensive to the smell, noxious, poisonous. By the force and intent of the allegory, to good grapes ought to be opposed fruit of a dangerous and pernicious quality ; as in the explication of it, to judgment is opposed tyranny, and to righteousness oppression. *Gephen*, the vine, is a common name or genus, including several species under it ; and Moses, to distinguish the true vine, or that from which wine is made, from the rest, calls it *gephen hayayin* ; the wine-vine, Numbers vi. 4. Some of the other sorts were of a poisonous quality as appears from the story related among the miraculous acts of Elisha : ' And he found a field-vine, and he gathered from it wild fruit, his lap full ; and he went and shred them into the pot of pottage, for they knew them not. And they poured it out for the men to eat ; and it came to pass as they were eating of the pottage, that they cried out and said, There is death in the pot, O man of God ! and they could not eat of it. And he said, Bring meal ; and he threw it into the pot. And he said, Pour out for the people, that they may eat. And there was nothing hurtful in the pot,' 2 Kings iv. 39—41.

From some such poisonous sorts of the grape kind, Moses has taken those strong and highly poetical images with which he has set forth the future corruption and extreme degeneracy of the Israelites, in an allegory which has a near relation, both in its subject and imagery, to this of Isaiah, Deut. xxxii. 32, 33—

' Their vine is from the vine of Sodom,  
And from the fields of Gomorrah ;  
Their grapes are grapes of gall ;  
Their clusters are bitter :  
Their wine is the poison of dragons,  
And the cruel venom of asps.'

The Jews planted their vineyards most commonly on the south side of a hill or mountain, the stones being gathered out, and the space hedged round with thorns, or walled, Isa. v. 1—6. Psal. lxxx. and Matt. xxi. 33. A good vineyard consisted of a thousand vines, and produced a rent of a *thousand silverlings*, or shekels of silver, Isa. vii. 23. It required two hundred more to pay the dressers, Cant. viii. 11, 12. In these, the keepers and vine-dressers labored, digging, planting, pruning, and propping the vines, gathering the grapes and making wine. This was a laborious task, and was often reckoned a base one, 2 Kings xxv. 12. Cant. i. 6. Isa. xli. 5. The vines with the tender grapes gave a good smell early in the spring.

The *vintage* followed the wheat harvest and the thrashing, (Lev. xxxvi. 5 ; Amos ix. 13) about June or July, when the clusters of the grapes were gathered with a sickle, and put into baskets (Jer. vi. 9), carried and thrown into the wine-vat, or wine-press, where they were probably first trodden by men, and then pressed, Rev. xiv. 18—20. It is mentioned as a mark of the great work and power of the Messiah, that he had trodden the figurative wine-press alone, and of the people there was none with him, Isa. lxiii. 3. Rev. xix.

15. The vintage was a season of great mirth. Of the juice of the squeezed grapes were formed wine and vinegar.

The *wines* of Canaan, being very heady, were generally mixed with water for common use, as among the Italians; and they sometimes scented them with frankincense, myrrh, calamus and other spices (Prov. ix. 2, 5; Cant. viii. 2); they also scented them with pomegranates, or made wine of their juice, as we do of the juice of currants, gooseberries, &c. fermented with sugar. Wine is best when old, and on the lees, the dregs having sunk to the bottom, Isa. xxv. 6. Sweet wine is that which is made from the grapes fully ripe, Isa. xlix. 26. The Israelites had two kinds of vinegar; the one was a weak wine, which was used for their common drink in the harvest field (Ruth ii. 14), as the Spaniards and Italians still do; and it was probably of this that Solomon was to furnish twenty thousand baths to Hiram, for his servants, the hewers that cut timber in Lebanon, 2 Chron. ii. 10. The other had a sharp acid taste, like ours; and thence Solomon hints, that a sluggard hurts and vexes such as employ him in business; as vinegar is disagreeable to the teeth, and smoke to the eyes (Prov. x. 26); and as vinegar poured upon nitre spoils its virtue, so he that singeth songs to a heavy heart, does but add to his grief, chap. xxv. 20. The poor were allowed to glean grapes, as well as corn, and other articles (Lev. xix. 10. Deut. xxiv. 21. Isa. iii. 14; chap. xvii. 6; xxvi. 13; Micah vii. 1); and we learn that the gleaning of the grapes of Ephraim was better than the vintage of Abiezer, Judg. viii. 2.

The *vessels* in which the vine was kept, were probably, for the most part, bottles, which were usually made of leather, or goat-skins, firmly sewed and pitched together. The Arabs pull the skin off goats in the same manner that we do from rabbits, and sew up the places where the legs and tail were cut off, leaving one for the neck of the bottle, to pour from; and in such bags they put up and carry, not only their liquors, but dry things which are not apt to be broken; by which means they are well preserved from wet, dust, or insects. These would in time crack and wear out. Hence, when the Gibeonites came to Joshua, pretending that they came from a far country, amongst other things they brought wine bottles, old and rent, and bound up where they had leaked, Josh. ix. 4, 13. Thus, too, it was not expedient to put new wine into old bottles, because the fermentation of it would break or crack the bottles, Matt. ix. 17. And thus David complains, that he had become like a bottle in the smoke; that is, a bottle dried, and cracked, and worn out, and unfit for service, Psal. cxix. 83. These bottles were probably of various sizes, and sometimes very large; for when Abigail went to meet David and his 400 men, and took a present to pacify and supply him, 200 loaves and five sheep ready dressed, &c., she took only *two* bottles of wine (1 Sam. xxv. 18); a very disproportionate quantity, unless the bottles were large. But the Israelites had bottles likewise made by the potters. See Isa. xxx. 14, marg. Jer. xix. 1, 10; ch. xlviii. 12. We hear also of vessels called barrels. That

of the widow, in which her meal was held, (1 Kings xvii. 12, 14) was not, probably, very large ; but those four in which the water was brought up from the sea, at the bottom of mount Carmel, to pour upon Elijah's sacrifice and altar, must have been large, 1 Kings xviii. 33. We read also of the water-jugs, or jars of stone, of considerable size, into which our Lord caused the water to be converted into wine, John ii. 6.

Grapes were also dried into *raisins*. A part of Abigail's present to David, was 100 clusters of raisins (1 Sam. xxv. 18) ; and when Ziba met David, his present contained the same quantity, 2 Sam. xvi. 1 ; 1 Sam. xxx. 12 ; 1 Chron. xii. 40.

## SECTION II.

### AROMATIC TREES.

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#### THE CEDAR.

'The forest of cedars' on the famed mountain of Lebanon, which once furnished the sacred writers with so many beautiful images, has now almost wholly disappeared. Some few trees remain, to remind us of their former glory, (Isa. lx. 13.) and to teach us the mutability of all sublunary things.

Burckhardt, the celebrated traveller, describes these ancient inhabitants of the forest, which are among the chief objects of the traveller's curiosity, in the following terms: 'They stand on uneven ground, and form a small wood. Of the oldest and best looking trees, I counted eleven or twelve: twenty-five very large ones; about fifty of middling size; and more than three hundred smaller and younger ones. The older trees are distinguished, by having the foliage and small branches at the top only, and by four, five, or even seven trunks springing from one base; the branches and foliage of the others were lower, but I saw none whose leaves touched the ground, like those in Kew Gardens. The trunks of the old trees are covered with the names of travellers and other persons who have visited them: I saw a date of the seventeenth century. The trunks of the oldest trees seem to be quite dead: the wood is of a grey tint.

The cedar is a large majestic tree, rising to the height of thirty or forty yards; and some of them are from thirty-five to forty feet in girth. It is a beautiful evergreen, possessing leaves something like those of the rosemary, and distils a kind of gum, to which various qualities are attributed. Le Bruyn says, the leaves of the tree point upward, and the fruit hangs downward: it grows like cones of the pine tree, but is longer, harder, and fuller, and not easily separated from the stalk. It contains a seed, like that of the cypress tree.

The wood of the cedar is very valuable; it possesses a strong aromatic smell, and is reputed to be incorruptible.—The ark of the covenant, and many parts of Solomon's temple, were constructed of it.

The cedar of Lebanon, says Paxton, is one of the natural images which frequently occur in the poetical style of the prophets; and is appropriated to denote kings, princes, and potentates of the highest rank. Thus, the prophet Isaiah, in denouncing the judgment

of God upon the proud and arrogant, declares that 'the day of the Lord of Hosts shall be upon all the cedars of Lebanon that are high and lifted up, and upon all the oaks of Bashan,' ch. ii. 13. The king of Israel used the same figure in his reply to the challenge of the king of Judah: 'The thistle that was in Lebanon, sent to the cedar that was in Lebanon, saying, Give thy daughter to my son to wife; and there passed by a wild beast that was in Lebanon, and trod down the thistle,' 2 Kings, xiv. 9. The spiritual prosperity of the righteous man is compared, by the Psalmist, to the same noble plant: 'The righteous shall flourish as the palm tree; he shall grow as the cedar in Lebanon.' To break the cedars, and to shake the enormous mass on which they grow, are the figures that David selects to express the awful majesty and infinite power of Jehovah: 'The voice of the Lord is powerful: the voice of the Lord is full of majesty: the voice of the Lord breaketh the cedars; yea, the Lord breaketh the cedars of Lebanon. He makes them also to skip like a calf; Lebanon and Sirion like a young unicorn,' Ps. xxix. 4. This description of the Divine majesty and power, possesses a character of awful sublimity, which is almost unequalled, even in the page of inspiration. Jehovah has only to speak, and the cedar, which braves the fierce winds of heaven, is broken,—even the cedar of Lebanon, every arm of which rivals the size of a tree: he has only to speak, and the enormous mass of matter on which it grows shakes to its foundation, till, extensive, and lofty, and ponderous as it is, it leaps like the young of the herd in their joyous frolics, and skips like the young unicorn, the swiftest of the four-footed race. The countless number of these trees in the days of Solomon, and their prodigious bulk, must be recollected, in order to feel the force of that sublime declaration of the prophet: 'Lebanon is not sufficient to burn, nor the beasts thereof sufficient for a burnt-offering,' Isa. xl. 16. Though the trembling sinner were to make choice of Lebanon for the altar, and were to cut down all its forests to form the fuel; though the fragrance of this fuel, with all its odoriferous gums, were the incense; the wine of Lebanon pressed from all its vineyards, the libation; and all its beasts, the propitiatory sacrifice; all would prove insufficient to make atonement for the sins of men; would be regarded as nothing in the eyes of the Supreme Judge, for the expiation, of even one transgression. The just and holy law of God requires a nobler altar, a costlier sacrifice, and a sweeter perfume,—the obedience and death of a Divine Person to atone for our sins, and the incense of his continual intercession, to secure our acceptance with the Father of mercies, and admission into the mansions of eternal rest.

## THE BALSAM TREE.

THE Balsam tree, though not a native of Judæa, was cultivated in great perfection in the gardens near Jericho, on the banks of the Jordan. Josephus, speaking of the Vale of Jericho, says, 'Now here is the most fruitful country of Judæa, which bears a vast number of palm trees, besides the balsam tree, whose sprouts they cut with sharp stones, and at the incisions they gather the juice which drops down like tears.' The Balsam produced by these trees was of such consequence as to be noticed by all the writers who treated of Judæa. When Alexander the Great was in Juria, a spoonful of the balm was all that could be collected on a summer's day; and in the most plentiful year, the great royal park of these trees yielded only six gallons, and the smaller one only one gallon. It was consequently so dear, that it sold for double its weight in silver. But from the great demand for it, adulteration soon followed, and a spurious sort grew into common use, at a less price. Justin, indeed, makes the balsam tree the source of all the national wealth; for, in speaking of this part of the country he says, 'The wealth of the Jewish nation arose from the opobalsamum, which grows only in those countries; for it is a valley like a garden, which is environed with continual hills, and as it were enclosed with a wall. The space of the valley contains two hundred thousand acres, and it is called Jericho. In that valley there is a wood, as admirable for its fruitfulness as for its delight; for its is intermingled with palm trees, and opobalsamum. The trees of the opobalsamum have a resemblance to the fir trees, but they are lower, and are planted and husbanded after the manner of vines; and on a set season of the year they sweat balsam. The darkness of the place, is, besides, as wonderful as the fruitfulness of it. For, although the sun shines no where hotter in the world, there is naturally a moderate and perpetual gloominess of the air.'

In the estimate of the revenues which Cleopatra derived from the region round about Jericho, which had been given to her by Antony, and which Herod afterwards farmed of her, it is said, 'This country bears that balsam which is the most precious drug that is there, and grows there only.' And in the account of Sheba's visit to Solomon, from a desire to see a person so celebrated for his wisdom, it is said that she gave him twenty talents of gold, and an immense quantity of spices and precious stones; 'and they say,' adds the Jewish historian, 'that we are indebted for the root of that balsam, which our country still bears, to this woman's gift.' This balsam is mentioned in the Scriptures, under the name of 'the balm of Gilead,' Jer. viii. 22; ch. xlv. 11; ch. li. 8.

The following account of the tree is extracted by Dr. Harris from Mr. Bruce.

The balessan, balsam, or balm, is an evergreen shrub, or tree, which grows to about fourteen feet high, spontaneously, and with-

out culture, in its native country Azah, and all along the coast to Babelmandel. The trunk is about eight or ten inches in diameter; the wood light and open, gummy, and outwardly of a reddish color, incapable of receiving a polish, and covered with a smooth bark, like that of a young cherry tree. It flattens at top, like trees that are exposed to snow blasts, or sea air, which gives it a stunted appearance. It is remarkable for a penury of leaves. The flowers are like those of the acacia, small and white, only that three hang upon three filaments, or stalks, where the acacia has but one. Two of these flowers fall off, and leave a single fruit; the branches that bear these, are the shoots of the present year; they are of reddish color, and tougher than the old wood. After the blossoms, follow yellow, fine scented seed, enclosed in a reddish black pulpy nut, very sweet, and containing a yellowish liquor, like honey. They are bitter, and a little tart upon the tongue; of the same shape and size of the turpentine tree, thick in the middle, and pointed at the ends.

There were three kinds of balsam extracted from this tree. The first was called *opobalsamum*, and was most highly esteemed. It was that which flowed spontaneously, or by means of incision, from the trunk or branches of the tree in summer time. The second was *carpobalsamum*, made by expressing the fruit when in maturity. The third, and least esteemed of all, was *hylobalsamum*, made by a decoction of the buds and small young twigs.

The great value set upon this drug in the east is traced to the earliest ages. The Ishmaelites, or Arabian carriers and merchants, trafficking with the Arabian commodities into Egypt, brought with them *balm*, as a part of their cargo, Gen. xxxviii. 25; ch. xliii. 11.

Strabo alone, of all the ancients, has given us the true account of the place of its origin. 'In that most happy land of the Sabæans,' says he, 'grow the frankincense, myrrh, and cinnamon; and in the coast that is about Saba, the balsam also.' Among the myrrh trees behind Azah, all along the coast, is its native country. We need not doubt that it was transplanted early into Arabia, that is, into the south part of Arabia Felix, immediately fronting Azah, where it is indigenous. The high country of Arabia was too cold to receive it; being all mountainous: water freezes there.

Notwithstanding the positive authority of Josephus, that Judea was indebted to Sheba for this tree, Mr. Bruce remarks, that we cannot put it in competition with what we have been told in scripture, as we have just now seen that the place where it grew, and was sold to merchants, was Gilead, in Judea, more than 1730 years before Christ, or 1000 before the queen of Saba; so that, in reading the verse, nothing can be plainer than that it had been transplanted into Judea, flourished, and had become an article of commerce in Gilead, long before the period he mentions. 'A company of Ishmaelites came from Gilead with their camels, bearing spicery, and balm, and myrrh, going to carry it down to Egypt,' Gen. xxxvii. 25. Now the spicery, or pepper, he adds, was cer-



tainly purchased by the Israelites at the mouth of the Red Sea, where was the market for Indian goods; and at the same place they must have bought the myrrh, for that neither grew, nor grows any where else than in Saba or Azabo, East of Cape Gardafan, where were the ports for India, and whence it was dispersed over all the world.

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### THE CYPRESS TREE.

THIS tree is only mentioned in Isaiah xlv. 14, and critics are not agreed whether the Hebrew word does really denote the cypress.

The cypress is a tall straight tree, which is cultivated with great difficulty. Its fruit is not edible; its leaves are bitter; and, according to Pliny, its very smell and shade are highly dangerous. Hence, the Romans considered it as a fatal tree, and used it at funerals and mournful ceremonies. The wood is always green, very heavy, of an aromatic smell, and is not subject to rot, or liable to be eaten by worms. The tree is distinguished into male and female: the branches of the male incline horizontally, those of the female are upright. Its fruit is round, olive-colored, and of the size of nuts, growing in separate places, and containing small angular seeds.

Bochart, Fuller, and other writers, have maintained, that the gopher-wood of which the ark was made (Genesis vi. 11) was cypress. Says Parkhurst, perhaps gopher may be a general name for such trees as abound with resinous, inflammable juices, as the cedar, cypress, fir-tree, pine, &c.

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### THE LIGN ALOE.

THE aloe tree is a native of India, and grows to the height of about eight or ten feet; having at its head large bunches of leaves, thick and indented, broad at the bottom, but narrowing towards the point, and about four feet in length. The blossom is red, intermixed with yellow, and double, similar to a pink: from this blossom proceeds the fruit, round, like a large pea, white and red. But there is another description of tree, called the *Syrian aloe*, otherwise *aspalatha*, which is a little shrub covered with prickles; of the wood of which, perfumers (having taken off the bark) make use, to give a consistency to their perfumes, which otherwise would be too thin and liquid. Cassiodorus observes, that this is of a very sweet smell, and that in his time they burned it before the altars, instead of frankincense. It is probable that this is the shrub de-

noted by the Hebrew word *ahalim*, which is applied to a sweet smelling wood [Prov. vii. 17; Psal. xlv. 9; Cant. iv. 14], which the *agalloch* or wood of aloes is not.

## THE ROSE TREE.

FROM a passage in the Book of Ecclesiasticus, we learn that the rose was a favorite among the Jewish people, as it also is in more eastern countries; and further, that it was a noble tree: 'I was exalted like a palm tree in Engeddi, and as a rose-plant in Jericho,' ch. xxiv. 14. From this it is evident that the plant now called 'the rose of Jericho,' is a vegetable of a very different description.

The following passage from a celebrated traveller, describing the rose of Persia, will perhaps convey something like an accurate idea of the celebrated roses of Sharon and Jericho, prior to the desolating of those fruitful regions.

'On first entering this bower of fairy land, I was struck with the appearance of two rose trees; full *fourteen feet high*, laden with thousands of flowers, in every degree of expansion, and of a bloom and delicacy of scent that imbued the whole atmosphere with the most exquisite perfume; indeed, I believe that in no country of the world does the rose grow in such perfection as in Persia—in no country is it so cultivated and prized by the natives. Their gardens and courts are crowded with its plants, their rooms ornamented with vases filled with its gathered bunches, and every bath strewn with the full-blown flowers, plucked from the ever-replenished stems. Even the humblest individual, who pays a piece of copper money for a few whiffs of a Kalioun, feels a double enjoyment when he finds it stuck with a bud from his dear native tree; but in this delicious garden of Negauvistan, the eye and the smell were not the only senses regaled by the presence of the rose: the ear was enchanted by the wild and beautiful notes of the multitude of nightingales, whose warblings seem to increase in melody and softness with the unfolding of their favorite flowers: verifying the song of their poet, who says, "When the charms of the bower are passed away, the fond tale of the nightingale no longer animates the scene."

It was right, says Paxton, to consecrate a plant so lovely to the service of religion. Solomon has accordingly chosen it to represent the matchless excellences of his divine Redeemer: 'I am the rose of Sharon' [Cant. ii.]; and the prophet Isaiah, to give us some faint conception of the wonderful change which the gospel produced in the state of the world, after the ascension of Christ, says, 'The wilderness shall rejoice and flourish: like the rose shall it beautifully flourish.'—Chap. xxxv.

### SECTION III.

## WOODY TREES.

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### THE OAK.

THE oak being so universally known, renders a particular description of it unnecessary ; but as it is thought that our translators have sometimes confounded it with the terebinth, which is not so common, we shall notice the leading features in the character of this tree. Mariti says, the terebinth is an evergreen of moderate size, but having the top and branches large in proportion to the body, the leaves resemble those of the olive, but are of a green color, intermixed with red and purple ; the twigs that bear them always terminate in a single leaf the flowers are like those of the vine, and grow in bunches like them ; they are purple, the fruit is of the size of juniper-berries, hanging in clusters, and each containing a single seed of the size of a grape-stone ; they are of a ruddy purple, and remarkably juicy. Another fruit, or rather excrescence, is found on this tree, scattered amongst the leaves, of the size of a chestnut, of a purple color, variegated with green and white. The people of Cyprus say that it is produced by the puncture of a fly : in opening them they appear full of worms ; the wood is hard and fibrous ; and a resin or gum distils from the trunk. The tree abounds near Jerusalem, and in Cyprus.

The terebinth under which Abraham entertained the angels (Gen. xviii. 1, &c.) is famous in antiquity. Josephus says, that six furlongs from Hebron they showed a very large terebinth, which the inhabitants of the country believed to be as old as the world itself. Eusebius assures us that in his time the terebinth of Abraham was still to be seen (!), and was held in great veneration both by Christians and Gentiles, as well from respect to Abraham, as to the heavenly guests he entertained under it. Jerom says, this terebinth was two miles from Hebron. Sozomen places it fifteen stadia from this city. These variations induce a doubt whether the writers speak of the same tree. The terebinth of Jacob, where he buried the gods, brought by his people from Mesopotamia (Gen. xxxv. 4), was behind the city of Shechem, and far from that at which Abraham dwelt, near Hebron ; yet they have been very absurdly confounded together. It is thought to have been under the same terebinth that Joshua renewed the covenant with the Lord ; and that Abimelech, son of Gideon, was proclaimed king by the Shechemites.

The prophetic benediction pronounced upon Naphtali (Gen. xlix.

21), is rendered by Dr. Geddes and some other critics, 'Naphtali is a spreading terebinth producing beautiful branches.' The reasons adduced against this interpretation may be seen in pages 110, 111, ante.

We have already noticed the religious veneration in which some kind of trees were held, by the heathen nations of antiquity : among these the oak stood in a pre-eminent rank. 'Ye shall be ashamed of the oaks which ye have planted,' says Isaiah, to the idolatrous Israelites, chap. i. 29. In Gaul and Britain we find that the highest religious regard was paid to the same tree and its mistletoe, under the directions of the Druids ; that is, the oak-prophets or priests. Few are ignorant that the mistletoe, or missaldine, is indeed a very extraordinary plant, *not to be cultivated in the earth*, but always growing upon some other tree, as upon the oak, apple, &c. The Druids says Pliny, hold nothing more sacred than the mistletoe, and the tree on which it is produced, provided it be the oak. They make choice of groves of oak on their own account, nor do they perform any of their sacred rites without the leaves of those trees, so that one may suppose that they are for this reason called by a Greek etymology, *Druids*. And whatever mistletoe grows on the oak, they think it sent from Heaven, and as a sign of God himself having chosen that tree. This, however, is very rarely found, but when discovered is treated with great ceremony. They call it by a name which in their language signifies *the curer of all ills* ; and having duly prepared their feasts and sacrifices under the tree, they bring to it two white bulls, whose horns are then for the first time tied. The priest, dressed in a white robe, ascends the tree, and *with a golden pruning-hook cuts off the mistletoe*, which is received in a *white* sagum or sheet. Then they sacrifice the victims, praying that God would bless *his own gift* to those on whom he has bestowed it.

Is it possible for a Christian to read this account, says Parkhurst, from whom we have transcribed the passages, without thinking of Him who *was the desire of all nations* : of the man whose name was the *BRANCH*, who had indeed *no father on earth*, but *came down from heaven* ; *was given to heal all our ills*, and after being *cut off* through the *divine counsel*, *was wrapped in fine linen*, and laid in the sepulchre, for our sakes ! I cannot forbear adding, he continues, that the *mistletoe* was a *sacred emblem* to other Celtic nations, as for instance, to the ancient inhabitants of Italy.

## THE FIR TREE.

THIS tree is a beautiful evergreen (Hos. xiv. 8), whose lofty height and dense foliage afforded a habitation for the birds of heaven (Psa. civ. 17), and a convenient shelter to the weary traveller, 2 Kings xix. 23; Isa. lv. 13; Ezek. xxxi. 8. Its wood was anciently used in finishing the interior of sumptuous buildings (1 Kings vi. 15, 34; 2 Chron. iii. 5; Cant. i. 17), and also in the construction of ships, Ezek. xxvii. 5. In 2 Sam. vi. 5, it is said, that 'David and all the house of Israel played before the Lord on all manner of instruments made of fir wood,' &c. Mr. Taylor inclines to think that the word *beroshim*, in this passage, may express some instrument of music, rather than the wood of which such instrument was made; but, with his usual candor, he gives the following passage from Dr. Burney's history of music: 'This species of wood, so soft in its nature and sonorous in its effects, seems to have been preferred by the ancients, as well as the moderns, to every other kind, for the construction of musical instruments, particularly the bellies of them, on which their tone chiefly depends. Those of the harp, lute, guitar, harpsichord, and violin, in present use are constantly made of fir wood.'

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## THE POPLAR.

THIS tree, which is mentioned only in Gen. xxx. 37, and Hos. iv. 13, is thought to obtain its name, *lebneh*, from the whiteness of its leaves, bark, and wood. In both passages the Vulgate interprets it 'poplar'; in the latter, the LXX. and Aquila render it *white*; i. e. poplar.

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## THE WILLOW.

THE Willow is a common tree, growing in marshy places (Lev. xxiii. 40; Pa. cxxxvii. 2; Isa. xlv. 4), and possessing a leaf like that of the olive. It is out of doubt, says Mr. Taylor, that the word *orebim*, signifies willows; all interpreters agree in it. The weeping willow is a native of the Levant. It runs to a considerable height, and no tree can be more graceful on the margin of a lake or stream. Its twigs are extensively used in the making of baskets.

## THE MUSTARD TREE.

THE description which our Lord has given of the *sinapi*, or mustard tree, in Matt. xiii. 31, 32, and the parallel passages, has induced much speculation and conjecture among learned men. His words are, 'A grain of mustard seed, which a man took and sowed in his field: which indeed is the least of all seeds; but when it is grown, it is the greatest among herbs, and becometh a tree, so that the birds of the air come and lodge in the branches thereof.' In order to account for the discrepancy which exists between this representation and the character of the *sinapis nigra*, or common mustard plant, it has been supposed that this may, in the more favorable climates of the East, exceed by far in its dimensions and strength that which is found in these colder countries. Lightfoot cites a passage from the Talmud, in which a mustard tree is said to have been possessed of branches sufficiently large to cover a tent; and Scheuchzer describes and represents a species of the plant several feet high, and possessing a tree-like appearance.

In support of this conjecture, Dr. Clarke remarks, 'some soils being more luxuriant than others, and the climate much warmer, raise the same plant to a size and perfection far beyond what a poorer soil, or a colder climate, can possibly do. Herodotus says, he has seen wheat and barley, in the country of Babylon, which carried a blade full four fingers in breadth, and that the millet and sesamum grew to an incredible size.' The doctor states, that he has himself seen a field of common cabbages in one of the Norman Isles, each of which was from seven to nine feet in height; and one, in the garden of a friend, which grew beside an apple tree, though the latitude of the place was only about 48° 18' north, was fifteen feet high. These facts and several others, which might be adduced, Dr. Clarke thinks fully confirm the possibility of what our Lord says of the mustard tree, however incredible such things may appear to those who are acquainted only with the productions of the northern regions and cold climates.

These are striking specimens, certainly, of the great difference existing among productions of the same species, in different climates and countries; but then, their distinctive character remains the same; whereas the reference in our Lord's parable implies so essential a difference as, on these principles, to convert an herbaceous plant into a tree, and thus destroy the identity of its character.

For the purpose of removing these difficulties, Mr. Frost, a gentleman eminent for his attainments in botanical science, published a work, in which he maintains that the *sinapi* of the New Testament does not signify any species of the genus we now designate *sinapis*, but a species of the *phytolacca*. We shall transcribe some passages from his work, and leave the reader to form his own judgment as to the conclusive nature of his arguments.

'The seed of an *herbaceous* plant, for such is the *sinapis nigra* or common mustard, cannot possibly produce a *tree*: and however great a degree of altitude and circumference the stem of common mustard might attain, yet it could not afford support for 'fowls of the air,' even allowing it grew to the height of eight feet, which it never does.

'Mustard seed is not the smallest of all seeds, as the translation implies, because those of foxglove (*digitalis purpurea*), and tobacco (*nicotiana tabacum*), are infinitely smaller: these are herbaceous, as well as mustard (*sinapis nigra*); and even granting, for a moment, that the common mustard seed was intended, the above evidence would annul the validity of the translation. This discordancy has been endeavored to be reconciled by a reference to *sinapis erucoides*, or shrubby mustard; but even this has not the smallest seed; and allowing, for the sake of argument, that this shrub could, by luxuriance of soil and climate, increase in height and circumference, and throw off large branches,—the size of the seed would remain the same, and the smallest of all seeds would not apply.

Among other statements made, as to the size to which the mustard plant will sometimes grow, Mr. Frost notices one writer, who observes that he saw one so large that it became a great bush, and was higher than the tallest man he had ever seen, and that he had raised it from seed. This our author readily conceives to be true but does not consider it at all explanatory of the subject, because an *annual* plant, such as *sinapis nigra* is, cannot become even a *shrub*, much less a *tree*.

Having thus endeavored to prove that the mustard seed of the New Testament is not procured from *sinapis nigra*, or any species of that genus, Mr. Frost next proceeds to show the identity that exists between *kokkon sinapeos*, and *phytolacca dodecandra* which he believes to be the *dendron mega* of the scripture.—'Phytolacca dodecandra grows abundantly in Palestine; it has the smallest seed of any *tree*, and obtains as great, or even greater, altitude than any other in that country, of which it is a native.

'Common mustard is both used for culinary and medicinal purposes; so are several species of *phytolacca*. It is rather remarkable, that the acridity of the latter induced Linnéus to place that genus in the natural order *Piperitæ*, whilst De Jussieu referred it to the family *Atriplices*, which certainly bears out its edible and acrid properties. The North Americans call *phytolacca dodecandra* (commonly known in our gardens by the name of American poke-weed), wild mustard; Murray, in his *Apparatus Medicaminum*, enters into a long history of the excellent quality of the young shoots; but remarks, that when *mature*, they cannot be eaten with impunity. Linnéus, in his *Materia Medica*, refers to the same circumstances. Its being edible, may be inferred from the Greek term *lackanon*, which occurs Matt. xiii. 32, and Mark iv. 32.

'Mustard seed is applied externally, as a stimulant, in the form of a *sinapism*; and the foliage of *phytolacca dodecandra* was used as an outward application to cancerous tumors.

'Of the acrid qualities of *phytolacca dodecandra* there can be no doubt; so that there appears a very strong analogy between the effects and properties of the general *sinapis* and *phytolacca*; besides which, I have ascertained the existence of a fourth ultimate chemical element, *Nitrogen*, in the seed of a species of *phytolacca*. Nitrogen was said only to exist in plants belonging to the natural orders *cruciatæ* and *fungi*, in the former of which the common mustard, *sinapis nigra*, is placed.'

Mr. Frost then proceeds to sum up his argument, showing that the *phytolacca dodecandra* is the tree mentioned in the gospels, from the following circumstances:—

'Because it is one of the largest trees indigenous to the country where the observation was made;—because it has the smallest seed of any *tree* in that country;—because it is both used as a culinary, vegetable, and medicinal stimulant, which common mustard is also;—because a species of the same genus is well known in the United States, by the term wild mustard;—because the ultimate chemical elements of the seed *sinapis nigra* and *phytolacca dodecandra* are the same.'

In conclusion, the author adds the generic characters of the two vegetables, by which they are seen, botanically, to be very distinct families.

Our thanks are due to this scientific gentleman, on account of the attention he has bestowed on the investigation of this subject, for the purpose of elucidating the sacred writings; the study of which he states to be the most interesting employment of the human mind. We take the liberty, however, to suggest, that his 'Remarks' would be rendered much more satisfactory and contributive to the object which he had in view by a proper *authentication* of the various statements he has made relative to the *phytolacca dodecandra*, from the writings of accredited Eastern travellers. The absence of this must be strongly felt by every intelligent reader of his work.



## CHAPTER IV.

### DOUBTFUL PLANTS AND TREES.

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#### THE BAY TREE.

THIS tree is mentioned only in Ps. xxxvi. 35, 36 :—‘ I have seen the wicked in great power, and spreading himself like a green bay tree. Yet he passed away, and lo, he was not: yea, I sought him, but he could not be found.’ But the original word *azrech*, merely signifies a *native tree*—a tree growing in its native soil, not having suffered by transplantation, and therefore spreading itself luxuriantly.

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#### THE PINE TREE.

THIS tree appears in three passages of our Bible ; but the manner in which it is introduced affords us no means of ascertaining whether this is a correct rendering of the original word. The first passage is Neh. viii. 15, where it is stated that pine branches were to be used in constructing the booths at the Feast of Tabernacles. The Hebrew words literally signify *trees of fatness*, and so seem to mean the resinous or gummy kind of trees, whose juices superabound and exude.

In Isa. xli. 19, and ch. lx. 13, the word is *thedher*, and the tree is so called, says Parkhurst, from the sprightliness or elasticity of its wood. Luther thought it was the *elm* : there is nothing, however, to operate against retaining the pine, which is found in Syria.

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#### THE SHITTAH TREE.

THIS tree is only mentioned in Isaiah xli. 19 ; but the wood which it furnished is spoken of in several passages in the Old Testament. The difficulty of identifying the shittah tree, has been felt by all interpreters, as is evident in the retention of the Hebrew name by many of them, and the diversified renderings of others.

Dr. Shaw, Mr. Parkhurst, and Mr. Taylor, take the shittah to be the same as the acanthus, or the acacia vera; a tree about the size of the mulberry tree, producing yellow flowers, and pods like lupines. It also yields the gum Arabic. The bark of this tree is of a greyish black; its wood is of a pale yellow color; its leaves resemble those of a lentil, and many hang together on the same side of a branch. The branches are full of thorns, which are often in pairs, and its foliage is extremely scanty.

The ark of the covenant (Exod. xxv. 10), the table of the shewbread (ver. 23) the bars and pillars of the tabernacle (ch. xxvi. 26, 32, 37), the altar of burnt-offering (ch. xxvii. 1; ch. xxxviii. 1), and the altar of incense (ch. xxx. 1), were all made of shittim wood, which the LXX., apparently unable to identify, have rendered, 'incorruptible wood.'

## THE ALMUG TREE.

ALMUG trees are mentioned in 1 Kings x. 11; 12, as being among the costly things brought from Ophir by the navy of Hiram, to king Solomon.

To detail the various opinions maintained by the learned, as to the particular tree intended by the *almug* or *algum*, would answer little purpose, though it would occupy considerable space. We will, however, transcribe the entire passage relative to it, from Josephus, as his statement may be considered, in such a case, of some importance. 'About the same time, there were brought to the king, from the Aurea Chersonesus, a country so called, precious stones, and *pine trees*; and these trees he made use of for supporting the temple and the palace, as also for the materials of musical instruments, the harps, and the psalteries that the Levites might make use of in their hymns to God. The wood which was brought to him at this time, was larger and finer than any that had ever been brought before; but let no one imagine that these pine trees were like those which are now so named, and which take their denomination from the merchants, who so call them, that they may procure them to be admired by those that purchase them; for those we speak of, were, to the sight, like the wood of the fig tree, but were whiter and more shining. Now, we have said thus much, that nobody may be ignorant of the difference between these sorts of wood, nor unacquainted with the nature of the genuine pine tree; and we thought it both a seasonable and humane thing when we mentioned it, and the uses the king made of it, to explain this difference so far as we have done.'

## THE BOX TREE.

THE box tree, being an evergreen, answers well enough to the Hebrew *tashur*, which probably implies perpetual viridity. The objection to this tree, that it is not sufficiently stately, seems to possess no weight, because there are associations of objects of an equally disproportionate size, where they participate of a common character, in other parts of the sacred writings. The import of the passages where this tree is spoken of (Isa. xli. 19; ch. lx. 13.), appears to be this: a perpetual verdure shall succeed to an unbroken barrenness—'I will plant in the wilderness the cedar, the shittah tree, and the myrtle, and the oil tree; I will set in the desert the fir tree, and the pine, and the box tree together.' But as we have not sufficient means to ascertain satisfactorily whether this was the tree to which the prophet referred, we prefer to place it in this section.

## THE GOURD.

M. MICHAELIS in his remarks on Jonah iv. says, 'Celsius appears to me to have proved that it is the 'kiki of the Egyptians.' Herodotus says: 'The inhabitants of the marshy grounds in Egypt make use of an oil which they term the kiki, expressed from the Sillicyprian plant. In Greece this plant springs spontaneously without any cultivation; but the Egyptians sow it on the banks of the river and the canals; it there produces fruit in abundance, but of a very strong odor. When gathered they obtain from it, either by friction or pressure, unctuous liquid which diffuses an offensive smell, but for burning, it is equal in quality to the oil of olives.' This plant rises with a strong herbaceous stalk to the height of ten or twelve feet; and is furnished with very large leaves, not unlike those of the plane tree. Rabbi Kimchi says, that the people of the East plant them before their shops for the sake of the shade, and to refresh themselves under them. M. Niebhur says, 'I saw for the first time, at Basra, the plant el-keroa. It has the form of a tree. The trunk appeared to me rather to resemble leaves than wood; nevertheless, it is harder than that which bears the Adam's fig. Each branch of the keroa has but one large leaf, with six or seven foldings in it. This plant was near a rivulet which watered it amply. At the end of October, 1765, it had risen in five months time, about eight feet, and bore at once flowers and fruit, ripe and unripe. Another tree of this species which had not had so much water, had not grown more in a whole year. The flowers and leaves of it which I gathered, withered in a few minutes; as do all.

plants of a rapid growth. This tree is called at Aleppo, 'Palma Christi.' An oil is made from it called 'oleum de keroa; oleum cicinum; oleum ficus infernalis.' The Christians and Jews of Mosul [Nineveh] say, it was not the keroa, whose shadow refreshed Jonah, but a sort of gourd, el-kera, which has very large leaves, very large fruit, and lasts about four months.'

The epithet which the prophet uses in speaking of the plant, 'son of the night it was, and son of the night it died,' does not compel us to believe that it grew in a single night, but either by a strong oriental figure, that it was of rapid growth, or akin to night in the shade it spread for his repose. The figure is not uncommon in the East, and one of our own poets has called the rose 'child of summer.' Nor are we bound to take the expression 'on the morrow' as strictly importing the very next day, since the word has reference to much more distant time, Exod. xiii. 5; Deut. vi. 20; Josh. iv. 6. It might be simply taken as *afterwards*. The circumstance of the speedy withering of the flowers and leaves of the keroa should not be slightly passed over; nor that of its present name cicinum (pronouncing the *c* hard, like *k*), which is sufficiently near the kikiun of Jonah. The author of 'Scripture Illustrated' remarks, 'as the history of Jonah expressly says, the Lord prepared this plant, no doubt we may conceive of it as an extraordinary one of its kind, remarkably rapid in its growth, remarkably hard in its stem, remarkably vigorous in its branches, and remarkable for the extensive spread of its leaves and the deep gloom of their shadow; and, after a certain duration, remarkable for a sudden withering, and a total uselessness to the impatient prophet.'

On the wild gourds of 2 Kings iv. 39, we have spoken in the article on the vine.

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## THE HEATH.

'He shall be like the heath in the desert,' says the prophet; 'he shall not see when good cometh; but shall inhabit the parched places in the wilderness, a salt land,' Jer. xvii. 6. And again,—'Flee, save yourselves, and be like the heath in the wilderness,' ch. xlviii. 6. But what plant is this heath? The LXX. and the Vulgate say, 'a tamarisk;' others 'a leafless tree;' and Parkhurst quotes from Taylor, 'a blasted tree, stripped of its foliage.' If it be a particular plant, he thinks the tamarisk as likely as any, because these trees have not much beauty to recommend them, their branches being produced in so straggling a manner, as not by any art to be trained up regularly: and their leaves are commonly thin upon their branches, and fall away in winter, so that there is nothing to recommend them but their address. But the question presents it-

self, says Mr. Taylor, can the tamarisk live in a salt land? in parched places? He thinks not, and therefore proposes to seek the Hebrew *orur* among the *lichens*, a species of plants which are the last productions of vegetation, under the severe cold of the frozen zone, and under the glowing heats of the equatorial deserts; so that it seems best qualified to endure parched places, and a salt land.

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## HEMLOCK.

THE word in Hebrew is used to denote a deadly poison in general, whether animal or vegetable : Deut. xxix. 18, *margin*, &c. It is frequently joined with wormwood; and from a comparison of Ps. lxi. 22, with John xix. 29, the learned Bochart thinks this herb in the Psalms to be the same as the Evangelist calls *hyssop*, a species of which growing in Judea, he proves to be bitter; adding, that 'it is so bitter as not to be eatable.'

From Hos. x. 4, &c. it seems that this word is also used to denote some particular vegetable: 'Judgment springeth up as hemlock, in the furrows of the field.' Here the comparison, as Mr. Taylor suggests, is to a bitter herb, which, growing among corn, overpowers the useful vegetable, and substitutes a pernicious weed. If the comparison be to a plant growing in the furrows of the field, strictly speaking, he continues, then we are much restricted in our plants, likely to answer this character; but if we may take the ditches around, or the moist and sunken places within the field also, then we may include other plants, and there is no reason why hemlock may not be intended,

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## WORMWOOD.

THIS may very properly follow hemlock, or gall; as it is so frequently united with it in scripture. It must be observed, that the disagreeable effects attributed to this plant (Deut. xxix. 18; Prov. v. 4; Jer. ix. 15; ch. xxiii. 15; Amos v. 7; and Rev. viii. 11), by no means accord with the wormwood of Europe, which is rather a salutary herb than a deadly poison. The true wormwood, therefore, may not be intended, but some plant allied to it, either in form or appearance; or which if it be of the same class, differs by its more formidable properties. The LXX. usually translate the word by terms expressive of its figurative sense.

## TARES.

It is not easy to decide, says Mr. Taylor, whether by the term *zizania* in Matt. xiii. the Saviour intends indifferently all plants which grow among grain, or some particular species. All we are certain of from the circumstances of the parable is, that it is a plant which rises to the height of the corn. Parkhurst cites Mintert, who says, it is a plant in appearance not unlike corn or wheat, having at first the same kind of stalk, and the same viridity, but bringing forth no fruit, at least none good.' He adds, from John Melchoir, *zizantion* does not signify every weed, in general, which grows among corn, but a particular species of weed known in Canaan, which was not unlike wheat, but being put into ground, degenerated, and assumed another nature and form. It bringeth forth leaves like those of wheat or barley, yet rougher, with a long ear, made up of many little ones, every particular whereof containeth two or three grains less than those of wheat; scarcely any chaffy husk to cover them with; by reason whereof they are easily shaken about, and scattered abroad. They grow in fields among wheat and barley. They spring and flourish with the corn; and in August the seed is ripe.

It grows among corn. If the seeds remain mixed with the meal, they render a man drunk by eating the bread. *The reapers do not separate the plant*; but, after the threshing, they reject the seeds by means of a fan or sieve. Nothing, says Mr. Taylor, can more clearly elucidate the plant intended by our Lord, than this extract:—It grows among corn—so in the parable. The reapers do not separate the plants—so in the parable: both grow together till harvest. After the threshing they separate them—in the parable they are gathered from among the wheat, and separated by the hand, then gathered into bundles. Their seeds, if any remain by accident, are finally separated by winnowing; which is, of course, a process preparatory to being gathered—the corn into the garner, or storehouse—the injurious plant into heaps for consumption by fire, as weeds are consumed.

## MALLOWS.

THE mallows of our translation, occurs only in Job xxx. 4, where speaking of the former miserable condition of some of those persons who now held him in derision, the patriarch says, 'Who cut up mallows by the bushes, and juniper roots for their meat.' Referring the reader to the account of the juniper for some general remarks on the passage, we shall here only add, after Parkhurst, that the name shows the vegetable spoken of to be a root of a brackish or saltish taste.

## M A N N A.

REFERRING our readers to Exod. xv. 1, for an account of the miraculous supply of this substance, as an article of food, and the circumstances connected therewith, we shall at once proceed to state what we have collected on the article itself.

To describe this substance, the sacred writer states, that it was 'a small round thing, as small as the hoar frost on the ground' (Exod. xvi. 14); that it was 'like coriander seed, white, and the taste like wafers made with honey' (ver. 31); and the color like that of bdellium, Numb. xi. 7.

Whatever this substance was, says Dr. A. Clarke, it was nothing common to the wilderness. It is evident the Israelites never saw it before; for Moses says (Deut. viii. 3, 16), 'He fed thee with manna which thou knewedst not, neither did thy fathers know;' and it is very likely that nothing of the kind had ever been seen before; and, by a pot of it being laid up in the ark, it is as likely that nothing of the kind ever appeared more, after the miraculous supply in the wilderness had ceased. It seems, he adds, to have been created for the present occasion; and like him, whom it typified, to have been the only thing of the kind, the only bread from heaven, which God ever gave to preserve the life of man; as Christ is the bread which came down from heaven, and was given for the life of the world.

The Psalmist, referring to this supply of manna and quails, adopts a phraseology which clearly implies its miraculous character:—

He commanded the clouds from above,  
And opened the doors of heaven;  
He rained down manna upon them to eat,  
And gave them of the corn of heaven.—  
Each one ate of food from above;  
He sent them meat to the full.

Ps. lxxviii. 23—25.

We shall close this article with Mr. Bloomfield's very excellent note on John vi. 31—33, which passage may appear, at first sight, to contradict the text of the Psalmist: 'Our fathers did eat manna in the desert: as it is written, 'He gave them bread from heaven to eat.' Then Jesus said unto them, Verily, verily, I say unto you, Moses gave you not that bread from heaven; but my Father giveth you the true bread from heaven: For the bread of God is he which cometh down from heaven, and giveth life unto the world.' Some maintain that Jesus, by his reply, only intended to refute the Jewish opinion respecting the origin of manna; and thus said that the bread which their ancestors had received from Moses, did not come from heaven, but was only naturally formed. But this would require a different phraseology. It rather seems that Jesus, whose aim it was to remove far more serious errors, even such as respect-

ed the morals of men, followed the popular manner of speaking ; thus wisely accommodating himself to their harmless opinion, in order to avoid giving them unnecessary offence. The passage may be thus paraphrased : 'The bread from heaven, the true celestial bread, Moses did not bestow on your forefathers ; he procured only bread fit to satiate the corporeal appetite, and appertaining only to this fleeting, transitory life. (See verse 49). But my Father bestoweth on you, by me, bread which may, in the complete sense, be termed bread from heaven ; such as is adapted to nourish the soul, and will confer eternal salvation,' verse 33. Jesus calls himself the true celestial bread, inasmuch as, having descended from heaven, he bestows on men the nourishment of the soul, namely, the divine and saving truths of his gospel. (Kuinoel.) Since they supposed that the manna was bread from heaven in the *proper* sense, Jesus corrects their erroneous notion, by hinting that the true heaven is there used *per catachresin* for the air, or sky ; as when it is said, the fowls of heaven, i. e. the *air* : q. d. 'As that descending from on high, nourished those who partook of it, so do I also. But that was from the air ; I from the real heaven. *That* nourished the bodies ; but I support and strengthen the souls of men.' Our Lord's declaration imports, as Mr. Bloomfield imagines, that it is in a subordinate sense only, that what dropped from the clouds, and was sent for the nourishment of the body, still mortal, could be called the bread of heaven, being but a type of that which hath descended from the heaven of heavens, for nourishing the immortal soul unto eternal life, and which is, therefore, in the most sublime sense, *the bread of heaven*.



## CHAPTER V. VEGETABLE SUBSTANCES.

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### SEC. I.—WOODS.

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#### THYINE.

THIS wood is mentioned, in Rev. xviii. 12, among the various articles of luxury imported into the modern Babylon:

Theophrastus says, that the thyon or thya-tree grows near the temple of Jupiter Ammon (in Africa), in the Cyrenaica, that it is like the cypress in its boughs, leaves, stalk, and fruit, and that its wood never rots. It was in high esteem among the heathen, who often made the doors of their temples and the images of their gods of this wood.

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#### CASSIA.

IN Exodus xxx. 24, Cassia is prescribed as one of the ingredients for composing the holy anointing oil. It is the bark of a tree of the bay tribe, which now grows chiefly in the East Indies. This bark was made known to the ancients, and highly esteemed by them; but, since the use of cinnamon has been generally adopted, the cassia bark has fallen into disrepute, on account of its inferiority. It is thicker and more coarse than cinnamon, of weaker quality, and abounds more with a viscid mucilaginous matter. For many purposes, however, Cassia, as being much less expensive, is substituted for cinnamon, but more particularly for the preparation of what is called oil of cinnamon.

Cassia was one of the articles of merchandize in the markets of Tyre, Ezek. xxvii. 19. The Cassia mentioned in Psalm xlv. 8, is thought to have been an extract, or essential oil, from the bark.

## CINNAMON.

THIS was also one of the ingredients of the holy anointing oil (Exod. xxx.); but whether it was the bark of the same tree as that now commonly used, is by no means certain; it is only found in the East Indies and in China, with which, it is unnecessary to say, there was no communication in the time of Moses. Pliny speaks of a species of cinnamon which grew in Syria: it was probably of an inferior description to that of Ceylon.

The cinnamon tree is mentioned, among other aromatics, in Cant. iv. 14, and as it is by no means unlikely that Solomon had imported some of those from India, the following account of it will not be out of place here.

This valuable laurel rises above twenty feet in height; the trunk extends about six feet in length, and one foot and a half in diameter: it sends off numerous branches, which are covered with smooth bark, of a brownish ash color; the leaves stand in opposite pairs, upon short foot-stalks; they are of an ovalish oblong shape, obtusely pointed, entire, firm, from three to five inches long, of a bright green color, and marked with three whitish longitudinal nerves. The common peduncles grow from the younger branches, and after dividing, produce the flower in a kind of paniculated umbel. The petals are six, oval, pointed, concave, spreading, of a greenish white or yellowish color, and the three outermost are broader than the other; the filaments are nine, shorter than the corolla, flattish, erect, standing in ternaries, and at the base of each of the three innermost, two small round glands are placed; the anthers are double, and unite upon the top of the filament; the germen is oblong, the style simple, of the length of the stamina, and the stigma is depressed and triangular: the fruit is a pulpy pericarpium, resembling a small olive of a deep blue color, inserted in the corollæ, and containing an oblong nut.

The use of the cinnamon tree is not confined to the bark; for it is remarkable that the leaves, the fruit, and the root, all yield oil of very different qualities, and of considerable value: that produced from the leaves is called oil of cloves, and oleum Malabathri: that obtained from the fruit is extremely fragrant, of a thick consistence, and at Ceylon is made into candles, for the sole use of the king. The bark of the root not only affords an aromatic essential oil, or what has been called oil of camphor, of great estimation for its medical use, but also a species of camphor, which is much purer and whiter than that kept in the shops.

The spice so well known to us by the name of cinnamon, is the inner bark of the tree; and those plants produce it in the most perfect state, which are about six or seven years old, but this must vary according to circumstances.

The bark, while on the trees, is first freed of its external green-

ish coat ; it is then cut longitudinally, stripped from the trees, and dried in sand, till it becomes fit for the market, when it is of a reddish yellow, or a pale rusty iron color, very light, thin, and curling up into quills or canes, which are somewhat tough, and of a fibrous texture. It is frequently mixed with cassia, which is distinguished from the cinnamon by its taste being remarkably slimy. This bark is one of the most grateful of the aromatics ; of a very fragrant smell, and a moderately pungent, glowing, but not fiery taste, accompanied with considerable sweetness, and some degree of astringency.

## SECTION II.

### FRUITS.

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#### NUTS.

THESE are mentioned among the articles which Israel desired his sons to take as a present to the governor of Egypt, his unknown child, Gen. xliii. 11. Bochart, Shaw, and some other critics are of opinion that the pistachio nut is intended, the finest in the world being found in Syria; but according to others, it was the produce of a species of the terebinth, which some prefer to the pistachio, and some think superior to the almond. The name of this kind of terebinthus is, in Arabic, *beten*, which is the word used in the passage under consideration.

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#### HUSKS.

It now seems to be admitted that the word *ceration* denotes not peas and beans, but the fruit of the *cerationa*, or carob tree, common in Spain, Italy, Turkey, and the East, where the fruit still continues to be used for the same purposes as that referred to in Luke xv. 16. Galen speaks of it as a woody kind of food, creating bile, and necessarily hard of digestion. Sir Thomas Brown is thought to have been the first to have discovered the sort of vegetable here meant; and as his details are, upon the whole, the most complete and interesting, and the work itself of not frequent occurrence, we make the following extract:

‘That the prodigal son desired to eat of husks given unto swine, will hardly pass in your apprehension for the husks of beans, peas, or such edulous pulses; as well understanding that the textual word, *ceration*, properly intendeth the fruit of the *saligna* tree, so common in Syria, and fed upon by men and beasts; also, by some, the fruit of the locust tree, and *Panis Sancti Johannis*, as conceiving it to have been part of the diet of the Baptist in the desert. The tree and fruit is not only common in Asia, and the eastern parts, but also well known in Apuglia, and the kingdom of Naples, growing along the Via Appia, from Fundi unto Mola: the hard cods or husks make a rattling noise in windy weather, by beating

against one another; called by the Italians carobbe, or carrobole, and by the French carouges. With the sweet pulp hereof, some conceive that the Indians preserve ginger, mirabolans, and nutmegs. Of the same, as Pliny delivers, the ancients made one kind of wine, strongly expressing the juice thereof: and so they might often give the expressed and less useful parts of the cods and remaining pulp, unto their swine; which, being no gustless or unsatisfying offal, might be well desired by the prodigal in his hunger.'

To this account we subjoin from Mr. Taylor the following description of the tree, and also some further particulars of the fruit.

This tree loves warm situations: it rises very high, on a thick trunk, and spreads out strong, large, and solid branches. Its leaves are wing-shaped, somewhat roundish, three inches broad or more, and rather longer. Its flowers are milk white; the fruit is in pods, longer and thicker than a finger, somewhat smoothed and flat; sweet and edible. Pliny says the same. The Egyptians, according to Alpinus, extract from these pods a very sweet honey, which the Arabs use for a seasoning instead of sugar. This honey also is employed, instead of bee honey for clysters; and some even give it as food to relax the bowels. It is probable, therefore, that the prodigal ate this fruit in a time of scarcity, as we might do acorns in England.

## SECTION III.

### G U M S.

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#### FRANKINCENSE.

THIS was an aromatic and odoriferous gum, which issued from a tree not certainly known, called by the ancients *Thurifera*. Theophrastus says, its leaves resemble those of a pear-tree. Pliny varies in his description, sometimes conforming to Theophrastus, but at other times stating it to be a kind of *laurel*, and even a kind of turpentine tree.

There are two kinds of incense—the male and the female; the former, which is the best, is round, white, fat, and very inflammable; the latter is soft, more gummy, and less agreeable in smell than the other. Frankincense formed one of the ingredients in the sacred perfume (Exod. xxx. 34), and from Isa. lx. 6, and Jer. vi. 20, we learn that it was imported into Judea from Sheba.

It formed one part of the priest's duty, under the Mosaic economy, to burn incense in the holy apartment of the temple, on the morning and evening of each day; and on the great day of atonement, at the moment of entering into the holy of holies, the high priest was required to throw some incense on the fire in his censer, that the cloud occasioned by its burning might cover the mercy seat (Lev. xvi. 13), lest, perhaps, his curiosity being excited, he might be induced to inspect with too profane a curiosity that symbol of the Divine Presence.

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#### GALBANUM.

NEARLY the whole of those articles which are now passing under our review, entered into the composition of the holy anointing oil, or the sacred perfumes, as described in Exod. ch. xxx. The galbanum is a gum issuing from an umbelliferous plant, growing in Persia and many parts of Africa. It is soft like wax, and when fresh drawn, white; but it afterwards becomes yellowish or reddish. It is of a strong smell, of an acrid and bitterish taste, inflammable in the manner of a resin, and soluble in water like gum.

## MYRRH.

THIS is also a vegetable production, of the gum or resin kind, issuing by incision, and sometimes spontaneously from the trunk and larger branches of a tree growing in Egypt, Arabia, and Abyssinia. Its taste is bitter and acrid, with a peculiar aromatic flavor, but very nauseous; its smell though strong, is not disagreeable. Its Hebrew name *mur*, whence the modern name is derived, is evidently from the verb *mer*, to be bitter, on account of its taste.

Myrrh is believed to possess the power of resisting putrefaction, and hence it was used by the Jews and Egyptians as one of the principal ingredients for embalming the dead, John xix. 39.

There has been conceived to be some discrepancy between Matt. xxvii. 34 and Mark xv. 23. In the former passage it is stated that the Jews gave as drink to our Saviour, 'Vinegar mixed with gall,' but in the latter it is stated to have been 'wine mingled with myrrh.' In order to remove this apparent variance, it has been supposed that the two evangelists speak of two different potions, or that Matthew, writing in Syriac, made use of the word *mer*, which signifies any bitter ingredient, which his translator mistook for *mur*, myrrh. We see no necessity, however, for resorting to either of these conjectures in order to reconcile the passages. Grotius has shown upon unexceptionable evidence, that by the word *oxos*, which is that used by Matthew, is not meant *vinegar*, but a very inferior *wine*, used only by the meanest persons. It was so called from its acidity, on account of which it was used well spiced with myrrh, frankincense, and sometimes wormwood. This potion, then, Mark calls 'wine mixed with myrrh,' or 'myrrhed wine,' and so might it be termed *impropié*. It appears from Galen that this drink produces mental turbation. Hence, wine mixed with myrrh, or with infusions of intoxicating herbs, was, through motives of humanity, usually administered to those about to endure a painful death. Jesus, however, magnanimously refuses *such* mitigation of his sufferings; and therefore, after tasting it, rejects the cup.

## STACTE.

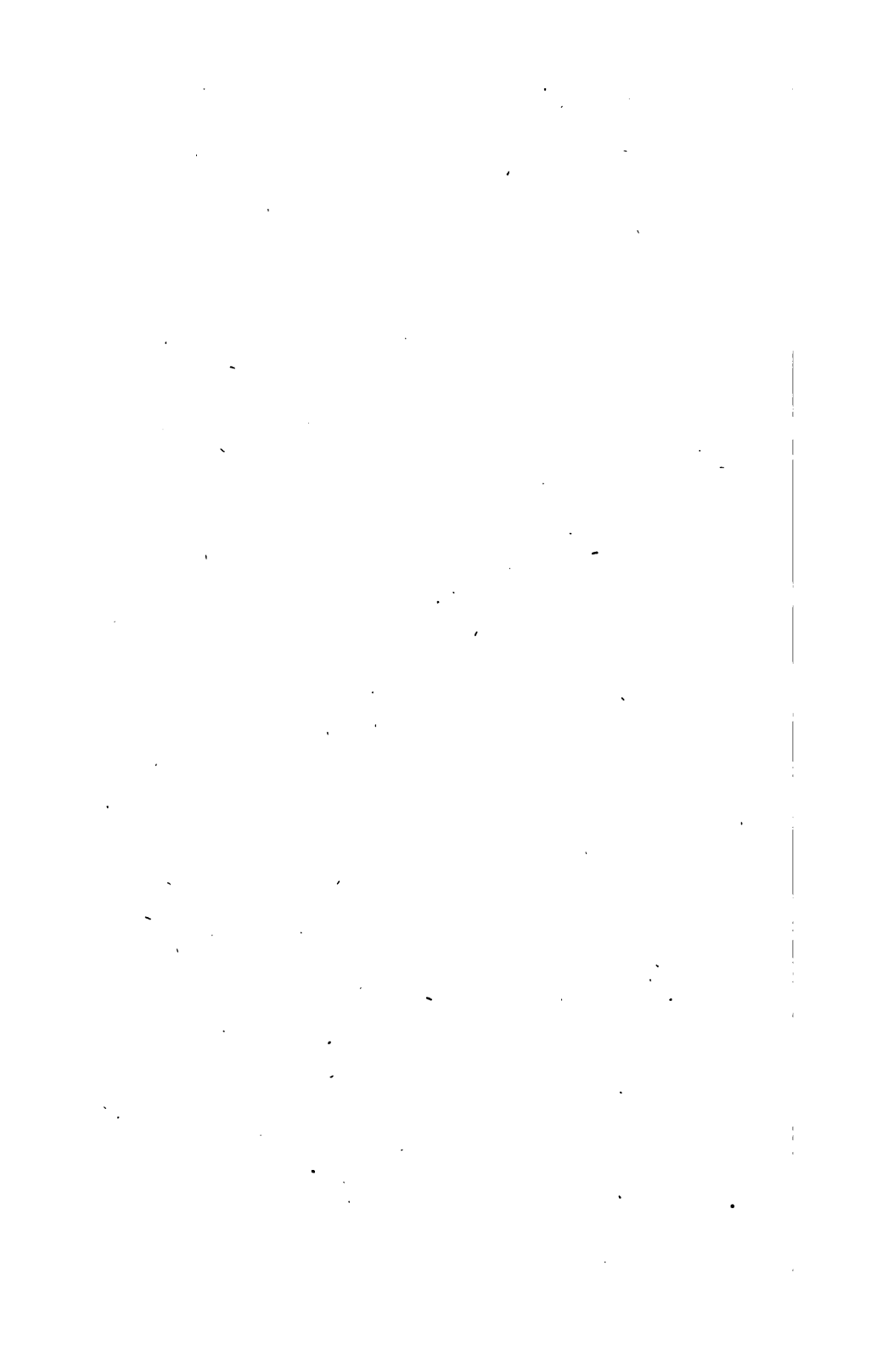
THIS is usually understood to be the prime kind of myrrh. The word in the original (Exod. xxx. 34), is *neleph*, which properly signifies a drop; and hence Mr. Parkhurst thinks it is myrrh distilling, dropping from the tree spontaneously—without incision. Scheuchzer is of opinion that balm or balsam is intended, 'which is properly a drop.'

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**PART III.**  
**GEOLOGY.**

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## GEOLOGY.

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THE term *Geology* is derived from *ge*, the *earth*, and *logos*, *word*, or *discourse*; and is therefore equivalent to a treatise concerning the earth. The direct object of this science is to unfold the solid substance of the earth, to discover by what causes its several parts have been either arranged or disorganized, and from what operations have originated the general stratification of its materials, the inequalities of its surface, and the vast variety of bodies that enter into its composition.

It will be evident, that to go into the details of this science can form no part of the object of this work; but there are a few branches of the subject which we cannot be allowed to pass over, in consequence of their intimate connexion with some important particulars of the sacred writings.

There is no necessity to revive here the controversy which once disturbed the Grecian schools, concerning the eternity of matter, and the spontaneous formations of atoms. Pythagoras, Socrates, Plato, Aristotle, and others, continued to maintain the barrier against the influx of principles so destructive of the moral happiness of man. Dr. Cudworth, in his 'True Intellectual System of the Universe,' spent the better periods of his life in bringing forward their ancient arguments, connected with the advantages of modern literature, with a view to put the free-thinkers of his time entirely out of countenance. Moralists, poets, and divines, acknowledge their obligations for his labors. But truth must still be clad in armor. The warring passions of men against the laws of heaven, ever raise their weapons against the doctrines of revelation. Every now and then, a new enemy approaches our flanks, wishful that we should not perceive his manœuvres till he has struck the blow. He approaches in the garb of science, and gains our ear as the friend of reason and of truth. Having obtained some ascendancy by his wisdom, and pleased us by his eloquence, he slides imperceptibly to the eternal war which the ocean has waged against the cliffs and promontories, and to the immeasurable periods which our continents have endured.

Now, if these doctrines be really founded, and by fair deductions, from the characters of the earth, then Moses is in error, and the ancient patriarchs were ignorant of the origin of the world; then the claims of revelation are nugatory, and impositions on the credulity of the public. If the history of nature do not afford arguments, and speak with a thousand voices of conviction to the mind,—if the earth itself do not furnish chronometers of a comparative juve-

nile existence, we have but to retire in vanquished silence, leaving the palm in the hand of infidelity. Because, if matter really be eternal, the Being to whom we ascribe the glory of creation, is dependent on matter, and no longer a free, but a necessary agent, who ought not to be adored, because he cannot hear or save.

Just the reverse of this is the Christian faith. We believe that the Supreme Being alone is eternal, independent of all creatures, and infinitely happy in himself. We regard the creation as a voluntary overflowing of his goodness, that intelligent beings might be happy in the contemplation of his works, and in the enjoyment of his favor. We admire the creation in order to adore the Creator. We see all nature full of his perfections. In the immensity of the creatures, and in the variety of their forms, we trace the wisdom of a God, who, in the formation of every creature, and the connexion of cause and consequence, had every possible plan before him, and has, in all cases chosen that which was best. Foreseeing the solar influence of the torrid zones, he has provided cooling fruits to allay the heats of fevers, breezes almost constant to cool the air, and provided the camel with an upper stomach, to hold a supply of water while crossing the parched deserts. Equally aware of the northern cold, he has there provided more solid food for man, the warmest wools for sheep which prefer the hills, and soft and open furs for beasts which pierce the thicket. Every creature in the mineral, the vegetable and the animal kingdom, alike discovers his wisdom, his goodness, and his care. Hence arises the impossibility of superadding the least improvement to the works of nature; for whatever has once received the finish of God, can never receive the smallest augmentation from the genius of man.

The contrast, therefore, between the believer and the unbeliever is wide and striking. While the mere geologist contemplates the mines and abysses of nature,—while he is awed by the falling of precipitous cliffs,—and while he trembles at an imaginary sinking of continents, and the consequent rise of others out of the sea, he looks into the abysses of his tomb—the tomb into which he is about to fall and rise no more: whereas, the Christian student looks through all nature with cheerful eyes. When he sees the mineral kingdom abounding in beauties, beauties which in their kind equal those of the vegetable and animal kingdom, he is transported with the thought, that the God who made all these beauties by his fiat, is himself infinitely more glorious than his works.\*

From the surveys which have been made of the solid crust of the earth, so far as it has been penetrated into, it is evident that the rudimental materials of the globe existed at its earliest period, in one confused and liquid mass; that they were afterwards separated and arranged by a progressive series of operations, and an uniform system of laws, the more obvious of which appear to be those of

\*Sutcliffe's Introduction to the Study of Geology, pp. 4—6. It is much to be regretted that this excellent little work is not more generally known.

gravity and crystallization; and that they have since been convulsed and dislocated by some dreadful commotion and inundation that have extended to every region, and again thrown a great part of the organic and inorganic creation into confusion.

Hence have originated the *Plutonic* and the *Neptunian* hypotheses: the former ascribing the origin of the world, in its present state, to *igneous* fusion; the latter, to *aqueous* solution. Both of these theories are of a very early date, and both of them have been agitated in ancient as well as in modern times, with considerable warmth and plausible argument. The principal champions of the Plutonic system, in later times, are Dr. Hutton, Professor Playfair, and Sir James Hall; names of high literary rank, but most powerfully opposed by the distinguished authorities of Werner, Saussure, Kirwan, Cuvier, and Jameson, who are supported by the general voice of scientific men.

Of these theories, the Plutonic is perhaps best entitled to the praise of boldness of conception and unlimited extent of view. It aspires, in many of its modifications, not only to account for the present appearances of the earth, but for that of the universe; and traces out a scheme by which every planet, or system of planets, may be continued indefinitely, and perhaps forever, by a perpetual series of restoration and balance.

With this system the Neptunian forms a perfect contrast. It is limited to the earth, and to the present appearances of the earth. It resolves the genuine origin of things into the operation of water; and while it admits the existence of subterranean fires to a certain extent, and that several of the phenomena that strike us most forcibly may be the result of such an agency, it peremptorily denies that such an agency is the sole or universal cause of the existing state of things, or that it could possibly be rendered competent to such an effect.

More especially should we feel disposed to adhere to this theory, from its general coincidence with the geology of the Scriptures. The Mosaic narrative, indeed, with bold and soaring pinions, takes a comprehensive sweep through the vast range of the solar system, if not through that of the universe; and in its history of the simultaneous origin of this system, touches chiefly upon geology, as the part most interesting to ourselves; but so far as it enters upon this doctrine, it is in sufficiently close accordance with the Neptunian scheme,—with the great volume of nature as now cursorily dipped into. The narrative opens with a statement of three distinct facts, each following the other in a regular series, in the origin of the visible world. First, an absolute creation, as opposed to a mere remodification of the heaven and the earth, which constituted the earliest step in the creative process. Secondly, the condition of the earth when it was thus primarily brought into being, which was that of an amorphous or shapeless waste. And thirdly, a commencing effort to reduce the unfashioned mass to a condition of order and harmony. 'In the beginning,' says the sacred historian,

'God created the heavens and the earth. And the earth was *without form and void* : and darkness was upon the face of the deep, (or abyss).—And the Spirit of God *moved upon the face of the waters.*'

We are hence, therefore, necessarily led to infer that the *first* change of the formless chaos, after its existence, was into a state of universal aqueous solution ; for it was upon the surface of the waters that the Divine Spirit commenced his operative power. We are next informed, that this chaotic mass acquired shape, not instantaneously, but by a series of six distinct days or *generations*, (that is epochs), as Moses afterwards calls them (Gen. ii. 4) : and apparently through the agency of the established laws of gravity and crystallization, which regulate it at the present moment.

It tells us, that during the first of these days, or generations, was evolved, what, indeed, agreeably to the laws of gravity, must have been evolved first of all, the matter of light and heat ; of all material substances the most subtle and attenuate ; those by which alone the sun operates, and has ever operated upon the earth and the other planets, and which may be the identical substances that constitute his essence. And it tells us, also, that the luminous matter thus evolved produced light without the assistance of the sun or moon, which were not set in the sky or firmament, and had no rule till the fourth day, or generation : that the light thus produced flowed by tides, and alternately intermitted, constituting a single day and a single light of each of such epochs or generations, whatever their length might be, of which we have no information communicated to us.

It tells us, that during the second day, or generation, up rose progressively the fine fluids, or waters, as they are poetically and beautifully denominated, of the firmament, and filled the blue ethereal void with a vital atmosphere. That during the third day, or generation, the waters more properly so called, or the grosser and compacter fluids of the general mass, were strained off and gathered together into the vast bed of the ocean, and the dry land began to make its appearance, by disclosing the peaks or highest points of the primitive mountains ; in consequence of which a progress instantly commenced from inorganic matter to vegetable organization, the surface of the earth, as well above as under the waters, being covered with plants and herbs bearing seeds after their respective kinds ; thus laying a basis for those carbonaceous materials, the remains of vegetable matter, which are occasionally to be traced in some of the layers or formations of the class of primitive rocks, (the lowest of the whole), without a single particle of animal relics intermixed with them.

It tells us, that during the fourth day, or epoch, the sun and moon, now completed, were set in the firmament, the solar system was finished, its laws were established, and the celestial orrery was put into play ; in consequence of which the harmonious revolutions of signs and of seasons, of days and of years, struck up for the first time their mighty symphony. That the fifth period was allotted exclusively to the formation of water-fowl, and the countless tribes

of aquatic creatures; and, consequently, to that of those lowest ranks of animal life, testaceous worms, corals and other zoophytes, whose relics are alone to be traced in the second class of rocks or transition formations, and still more freely in the third or horizontal formations; these being the only animals as yet created, since the air, and the water, and the utmost peaks of the loftiest mountains, were the only parts as yet inhabitable. It tells us, still continuing the same grand and exquisite climax, that towards the close of this period, the mass of waters having sufficiently retired into the deep bed appointed for them, the sixth and concluding period was devoted to the formation of terrestrial animals; and, last of all, as the masterpiece of the whole, to that of man himself.

Such is the beautiful, but literal progression of the creation, according to the Mosaic account, as must be perceived by every one who will carefully peruse it for himself.

Thus, in progressive order, up rose the stupendous system of the world: the bright host of morning stars shouted together on its birth-day; and the eternal Creator looked down with complacency on the finished fabric, and 'saw that it was good.'

Before we notice the changes induced on the earth by the deluge, it is proper to meet the objection made by some geologists against the Mosaic history, derived from the marble tablets, which, in many instances exhibit broken shells, and fossil-teeth, evidently worn with mastication. To this it is replied, First, that testaceous marbles are never found at any great distance from the present level of the sea. Secondly, that from the creation to the deluge, the sea, as now, would make war on promontories, and deposit her erosions on calmer shores. Thirdly, that the shells so covered in places where the under strata were disposed to promote the formation of marbles, by the ascension of the marmorous fluid, would unite with the matter so laid on, and concrete into the beauteous masses in which they are now found. Consequently, the noble author of *The Beauties of Christianity* seems injudicious, in the ascription of a mutilated and imperfect work to the all-perfect Being. 'The very day,' he says, 'that the ocean poured forth his first waves, he doubtless laved rocks already worn by billows, shores strewn with fragments of shell-fish, roaring gulphs and naked cliffs, which protected the sinking coasts against the ravages of the waters.'

In other places the turbid deposits of the sea, containing salts, magnesia, and marine acid, holding a considerable quantity of minerals in a state of solution, would, attracted by the combining and concreting essence of the under strata, repeat all the other formations of primitive nature, though in smaller masses. To these must be added the lava, which in other places was rolled on the vallies by volcanoes, and the bursting of mountains, where the sea had a rapid access to their latent fires. These considerations, respecting the state of the antediluvian earth, may assist the lovers of nature to account for the formation of many alluvial rocks and strata, which we cannot with confidence say were formed since the deluge of

**Noah.** It is a fact, demonstrated by the study of nature, and confirmed by innumerable experiments of chemistry, that the same aluminous warp of the sea would, on one soil, form marble, on another gypsum, on another alum, rocks, &c. but generally would remain in schistus and clays, when reposed on the more neutral bases of rocks and sands.

The striations, in alluvial marbles, which cut one another obliquely, and form the mass into diamonds, appear to have been formed by the action of the sun upon the shores during the neap tides. The warp on mud has been observed to dry and break into oblique fissures; the upper surface to break into diamonds, as in marble columns, and become considerably indurated by the solar heat. These fissures, though filled up by the next spring tide, would not be so closed as to exclude the pores and channels of the water; and waters continuing to pass, would form the white, or the mineral streaks of the marble, as is farther demonstrated by the hollow stalactites pendant from the roof of caverns, and of ruins; by the quartose veins in schistus or blue slate; and by the rapid manner in which vegetables are changed to stone, in petrifying wells. Also where the mineral fluids and marine acids predominated in those clays, they would curdle and variegate the marble tints as they now appear, in all the variety of dappled hues. The waters of the ocean have, in many places, the power of producing coral petrifications to a very great extent. Sir Hans Sloane reports of a ship sunk in the Gulf of Mexico, containing silver, that after thirty years, on coming to dive for the treasure, they found the outside and inside of the ship, and all the spaces between the chests, so encrusted with a coral matter, and so extremely hard, as to be difficult to break.

Consequently, the waters thus descending from the summit of mountains to depths which no miner can penetrate; and repeating in the fissures and cavities of the primitive earth to the time of the deluge, all the formations of nature, and still continuing to do the same, must make men cautious of objecting to the Mosaic history, because the alluvial impressions of vegetable and animal fossils often exist in rocks and mountains accounted primitive.

We now proceed to notice the desolations, changes, and new formations which the universal deluge effectuated on the surface and upper strata of the earth.

Of the event itself, we are assured beyond the possibility of a doubt. We have no difficulty in proving it, except from a superabundance of proof. It is asserted, both by sacred and profane historians, how disguised and disfigured soever the latter accounts may be. Plutarch, in his book on the industry of animals, mentions both the ark and the dove. The account Ovid has given of the flood, in the reign of Deucalion, which drowned all Thessalia, and from which the king and his wife were saved on Mount Parnassus, seems to be a confused tradition between the deluge of Noah, and a partial inundation.

The etymology of the name Deucalion, from *deuteros*, the second, and *kaleo*, to call, imports the recalling of society a second time into existence under the patriarch Noah. It was usual with ancient nations to give new names to princes, expressive of auspicious events; a custom not yet wholly discontinued. The landing of Deucalion with his wife on Mount Parnassus is but a confusion of the tradition concerning the resting of the ark on Mount Ararat. The deluge not only covered both these mountains, but has left stratifications on all the higher mountains, as far as the snow will allow us to ascend. In Switzerland, Count de Saussure asserts, that marine petrifications are not found higher than two thousand eight hundred feet, (equivalent to about three thousand English feet,) above the level of the sea, and in caverns sometimes to the depth of twelve hundred feet; yet there the summits of the hills exhibit the desolations of the waters in characters which command universal assent.

The moral cause of this unexampled catastrophe is wholly attributed by the Hebrew historian to the great and incorrigible wickedness of the antediluvians. And what could be more agreeable to the Divine perfections, when the apostacy was total; when all flesh had corrupted its way; when the sons of the great seized the daughters of the poor; when the earth was filled with violence; when the prophesying and translation of Enoch had no effect; when the preaching of Noah, and the building of the ark excited scoffing rather than reformation; what could be more agreeable to the perfections of God, than to save the one righteous family, and wash away the filthy inhabitants of the earth?

The physical cause is attributed by Dr. Halley, and two or three other astronomers, to the near approach of a comet towards the earth, which, Mr. Whiston thinks, descended on the plane of the ecliptic. To these suppositions real difficulties may be opposed, which seem insuperable.—Why has not the same comet returned, and often returned, in so great a lapse of time? Why are the strata of alluvial earth found too numerous to agree with the number of tides which could take place during the short time that the earth could remain in the neighborhood of a comet? Nor should it escape remark, that a man, who calmly investigates the bounds prescribed to the ocean, and the precision of gravity in the flux and reflux of the sea, can never be brought to believe that the prodigious tides which ravaged the old world could be attracted to overflow the hills, without a special command from the God of nature.

The elder Rabbins, mostly followed by the Christian fathers, commenting on those words of Moses, 'The fountains of the great deep were broken up,' suppose an eruption of latent waters, which covered the earth's surface to the elevation of the mountains. But such an elevation, instead of stratifying the earth, as we now find it, would only harden its surface by an immense pressure. When a spring tide retires, we every where find the sands so closed by the pressure of not more than forty feet of water, as scarcely to be



indented by the galloping of a horse. Consequently, the flux and reflux of prodigious tides, seem the only theory on which the students of nature can account for the stratification of the earth. And, as the moon now governs the variation of the tides, were it lawful to indulge in conjecture, it might be thought that God, who employs means the most natural and easy, was pleased to drown the world by an increase of elipticity in her orbit.

The Mosaic history of the deluge has been carefully examined by Lightfoot, who equalled the Rabbins in Hebrew literature. The whole period, according to him, comprised a solar year. Forty-six days of this period were spent in conveying stores and provisions for the ark; and seven in receiving the beasts and cattle. The rain began to fall on the 18th day of the Hebrew month of Marchesvan, and continued forty days. During the fall of the rain, it is thought that the atmosphere was much darkened, because it was afterwards promised that day and night should no more cease, Gen. viii. 22. The waters or tides continued to increase for one hundred and fifty days. The decrease commenced on the first day of Sivan, and continued one hundred and twenty days. Thus we trace the counsel of heaven, and not the accidental approach of a comet, in allowing Noah time to reap the harvest before the rain; and in bringing him out of the ark at a season proper for following the waters with the seeds for the succeeding year.

The changes and ravages of nature, correspond with the impetuous force of the flood. Travellers and geologists are all agreed, that in every continent and island, the mountains, the hills, the declivities, are, in places without number, left desolated of earth, craggy and bare; and many of the rocks of bolder hills, and salient promontories, appear to have been detached to a considerable distance from the elevated summits to which they once belonged. Against promontories and bolder shores, the flux and reflux of the tides would be so impetuous, as, in many places, to undermine their base, and the part so undermined would fall prostrate into the sea, leaving the side from which it was disjoined by caverns and fissures, a mural and terrific precipice, to brave through future ages the incessant war of the ocean. M. de Saussure has described the precipice of the calcareous rocks of Mont Brezon, in Switzerland, as the most sublime and terrific he had ever seen; and he traced the action of water 200 toises higher than the lake of Geneva. Bishop Poutoppedon tells us, in his history of Norway, that the water close to the rocks is generally three or four hundred fathoms deep. In Floge Creek, he adds, no bottom can be found with a line of a thousand fathoms. Nordall Creek is reported to be nine hundred fathoms in depth; and other Creeks of Norway, which indent themselves ten leagues within the land, continue to have three or four hundred fathoms of water. The bottoms also of those creeks resemble the land in hills, dales, and rugged rocks.—Several of our English navigators give us similar accounts of creeks in the western coast of North America, and in the vicinity of Nootka

**Sound.** How tremendous must be the idea of the deluge descending from promontories so elevated! How profound must be the guymes and abysses they would work by the impetuosity of their cataracts! But it is also to be remarked, that all these contour and daring cliffs have remained much the same since the deluge; the seas, as is evident from topographical history, have made few advances, except against the promontories and shores composed of softer earths.

It is therefore apparent, that whatever earths the impetuous tides of the deluge washed from one place, they must of necessity deposit in another. This is an invariable law of the ocean. Hence one tide would bring gravel and marine exuviae, already worn by the actions of the billows rolling on the shore; another would bring sand, and a third clay. But though all alluvial strata were formed of the detritus of the old earths, they would repeat the first formation by combination. They would change into a variety of silica, rocks, marls, and minerals; while others, falling on more neutral earths, would remain in their primitive state. Thus also the deeper strata of the earth would be laid on while the waters were rising; and all the more loamy earths, by the gradual retreat and subsiding of the waters. These long continued actions and deposits of the water are a sure guide in accounting for all the conformations and heterogeneous masses found in most parts of the alluvial earth.

This idea, that the deeper alluvial strata were laid on by the increasing tides, assists us to account for the deposit of coal. This is confessedly a vegetable fossil; and, from the purity of its beds, we have the justest grounds of conclusion, that it once floated upon the sea. When analyzed, charcoal constitutes the principal part of its base. Acidulous waters, bitumen, and hydrogen, it contains in various proportions. Its combustible qualities, and its ashes, may also be retraced to vegetable origin. Both the bovey coal, and the coal which swiftly burns to white ashes, exhibit the fibres of wood. The argilla, and the animal substances, of necessity mixed in the mass, have been very much converted into its own essence, as is usual in other combinations of nature. Its color is derived from iron, which it powerfully attracts; and no one could doubt of this, if he would consider the quantity of iron contained in all vegetables, or how powerfully this mineral changes vegetable dyes to black. The various families of coal, whether of jet, common, or cannele, seem to derive their distinction from the different kinds of timber, and from contiguous earth; but the more bituminous obviously participate of a larger quantity of animal substances, which would also float on the waters.

The floating masses of timber, eradicated by the deluge, and locked by the roots and branches, and much increased by vegetables, as well from the sea as the land, were assuredly laid on by retiring tides in those calmer bosoms of the earth, where the sea was disposed to make her deposits. This is demonstrated from the stratification of the earth above and below the coal; and

from works of art being occasionally found in the mass. Pennant reports, that the ancient Welsh found a flint axe in the midst of a bed of coal. It is not questioned but the axe had been lodged in a tree, and floated there by the ocean. In all places where the under stratum is horizontal, the coal is horizontal; and where it is inclined, as is mostly the case, the coal is inclined; but where it is rugged with rocks, the coal participates of the inequalities, being broken into gauls. In such places the miner suddenly loses his bed; which, however, he finds again on working round.

But coal, it will be said, often lies deep, and far below the level of the sea; and, that whatever weeds the tide may leave in bays, they are raised again by the next tide, and mostly carried away. Near Newcastle-upon-Tyne, the Montague main colliery is more than one hundred and twenty fathoms from the surface, and covered with seventy-four strata. The Staffordshire coal lies on a greater declivity, and nearer the surface. How deep the coal descends is unknown, for the pits are not worked deeper than seventy fathoms.

All these considerations may be regarded as difficulties rather than objections. In studying the situation of the Staffordshire coal, the following solution presented itself to the mind of Mr. Sutcliffe, which appears sufficiently satisfactory. First that the vast flotilla of vegetables and timber, being completely locked, roots and branches, by the undulations of the sea, would be deposited on the soft surface left by the preceding tide. Secondly, that the various heath plants, which contain more iron than any other, with all other kinds of vegetable, and often animal substances, would sink downward among the bodies of the trees, so as to form one mass, and greatly press the roots and branches into the soft earth. Consequently the next tide, recoiling with indescribable impetuosity, and being as turbid as the water could bear, could not possibly raise the vegetable mass locked in itself, and now adhering to the earth, until the waters were considerably advanced on a shore, which dipped one yard every fourth, as is here the case: meanwhile, the turbid matter, among the calm produced by the roots and branches, would make so rapid a deposit, that before the waters were high enough to raise the flotilla, the mass under these circumstances, would, almost instantly, become completely entombed by an incumbent stratum. The next tide would lay a second stratum; and every third, fourth, or fifth tide, seems to have brought a new flotilla of timber, and est it in the western bosom of the mountain, which has become entombed and stratified as the former. In this manner, so far as the tremendous operations of the deluge can be traced, in the short space of two leagues, fifty or sixty beds of coal were laid on between Burslem and Mowcop, as immense treasures for future times. The number of strata between each bed, apparently indicates the number of tides which rolled against this primitive mountain, between the arrival of each flotilla. On the eastern declivity of this mountain, where the

Trent has its source, the coal dips the opposite way, varying in all places, according to the flood-washed shores on which the timber was deposited. How weak then must be the argument of Mr. Kirwan, that bovey coal is coeval with the creation, because calcareous rocks also contain 27 parts of a 100 of carbon. No doubt, all the families of coal, deficient of carbon, and very slaty, are largely mixed with the turbid deposits of the deluge.

Our attention must next be directed to the formations of nature, in the alluvial or newly stratified earth, in which all the laws of affinity and attraction would act with full effect. It is, however, to be remarked, that much of the matter laid on by the deluge, as rocks, flint, and minerals, being already formed, are the detritus of former strata, not liable to change. Yet the heterogeneous masses would produce an immensity of formations, by the conflict of their component parts. These, though weaker in the resources of energy than at the first creation, would be the same in operation. The waters oozing through every strata, from their subterraneous currents, and the atmospheric air, every where attendant on those currents, would aid the crystallizations of the earth. Every essence of nature would collect and concrete in the struggle. The whole alluvial masses would therefore change in color, change in quality, change in character, and diversify in species. The silica would granulate in all dimensions, and assume their tints, as in the first creations; the more calcareous masses would concrete into the various species of limestone; while the more neutralized aluminous would vary its colors and qualities, as it participated of surrounding substances. The whole would then, by the expansion of latent heat, and the diminution of moisture, break by fissures into masses, as they now are found to exist.\*

But the researches of modern geologists have given abundant confirmation to sacred history, not only with respect to the origin of the earth, and the universal deluge, but also with regard to the age of the earth. Early in the last century, and indeed, until within a few years, several geological phenomena were considered, by superficial inquirers, as indications that the creation of the globe we inhabit was an event much more remote than the sacred history represents it: the same theorists even went so far as to profess a belief that it existed from eternity. These opinions were kept in countenance only so long as geology was in its infancy. Every successive step which has been taken in the improvement of this science has served to show their fallacy. The investigations of the latest and most accurate philosophers have afforded proof, little short of demonstration, that the earth, at least in its present form,†

\* Sutcliffe's Introduction to Geology, pp. 20—22.

Mr. Faber, in order to meet the objections of some of our geologists, which are founded on the fossil phenomena occurring in the strata of the earth, maintains, that the six dimiurgic days were periods of vast but uncertain length, during which some mighty revolution occurred, to which the origin of these strata are to be attributed, rather than to the deluge of Noah.—*Treatise on the Three Dispensations*, b. i. ch. 3.

cannot have existed longer than appears from the Mosaic account. The absolute falsehood of many positive assertions, and specious inferences hostile to the scripture chronology, has been evinced ; and thence has arisen a new presumptive argument in support of the authenticity of that volume, which contains the most ancient and the most precious of all records.\*

\* Kirwan's Geological Essays, and Miller's Retrospect, cited by Shaw, *Panorama of Nature*, p. 14. Mr. Townsend, in his 'Geological and Mineralogical Researches,' has presented us with some excellent Geological Chronometers, as Deltas, Lakes, Estuaries, Drift Sands, and Mouldering Cliffs. From all these chronometers, consisting in effects which result from known causes, operating since the existence of our continents, and of which the progress within known times is indicated by monuments, he justly draws this conclusion, that our continents are not of a more remote antiquity than has been assigned to them by the sacred historian in the beginning of his Pentateuch.—p. 403.

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## CHAPTER I. STONES.

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WE shall restrict our examination to those stones specifically mentioned in the Bible; and we have cause to regret the scantiness of our information on nearly all of them. As they are of few kinds, and extremely difficult to be identified, we shall attempt no scientific arrangement, but take them in alphabetical order.

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### ADAMANT.

THIS is one of the names given to the diamond, but all we can collect from those passages of Scripture in which the *shenir* is mentioned (Jer. xvii. 13; Ezek. iii. 9; Zech. vii. 12), is, that it is some very hard substance. Scheuchzer thinks it was the *smiris*, which was used for engraving, polishing, and cutting other hard stones and glasses.

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### AGATE.

THE word, *shebo*, occurs only in Exod. xxviii. 19, and xxix. 12; and interpreters are pretty generally agreed, that it denotes the agate, which derives its name from the river Achates, in Sicily, in the vicinity of which the ancients obtained it in considerable quantities.

The agate is a semi-transparent stone of the quartz family, 'in which Nature seems to divert herself,' says Lamy, 'with the different things she imprints upon them.' It is well known that the agates change or vary their appearance without end; and Parkhurst inclines to think, that *shebo* may be a name of the species from this circumstance, q. d. *The variet*?

It must be remarked, that agate is not, as some writers imagine, a simple mineral: it is composed of various species of the quartz family, intimately blended together. Of these minerals, sometimes only two, and sometimes three or more, occur in the same agate;

and hence its varieties are extremely numerous. The figures produced by these combinations are sometimes very curious; but in some instances the variations are suspected to be the work of art. One is mentioned in the church of St. Mark, at Venice, which had the representation of a king's head, surrounded by a diadem. On another was represented a man in the attitude of running. But the most remarkable of all, says Bingley, seems to have been one which contained a representation of the nine Muses, with Apollo in the midst of them!

In Isa. liv. 12, and Ezek. xxvii. 16, our translators have rendered another, and a different word (*bedeched*) by *agate*: bishop Lowth thinks it is the ruby, and Mr. Parkhurst the pyropus; the latter version seems best to correspond with the Hebrew name, which is from a root signifying to *propel*, *dart forth*.

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### ALABASTER.

THIS is a kind of sulphat of lime, or of lime in combination with sulphuric acid, which has a shining and glittering texture; and is of white color, tinged with grey or red, and sometimes stripped, veined, or spotted. Being considerably softer than marble, it is more easily worked, and was used by the ancients, as by ourselves, for the manufacture of vases and other ornamental vessels. Such is sometimes the transparency of alabaster, that it has been employed for windows; and at Florence, there is now a church which receives its light through the medium of this substance.

Alabaster is mentioned only in Matt. xxvi. 6, 7, and the parallel passages: 'Now when Jesus was in Bethany, in the house of Simon the leper, there came unto him a woman having an alabaster box of very precious ointment, and poured it on his head as he sat.' Mark adds, 'she brake the box,' which circumstance has given rise to some discussion. Dr. A. Clarke translates the clause, '*she brake the seal*;' remarking, that this is the best translation he can give of the place, and that he gives it for these reasons: First, it is not likely that a box, exceedingly precious in itself, should be broken to get out its contents; Secondly, the broken pieces would be very inconvenient, if not injurious, to the head of our Lord, and to the hands of the woman; Thirdly, it would not be easy effectually to separate the oil from the broken pieces; and, Fourthly, it was a custom in Eastern countries to *seal* the bottles with *wax* that held the perfumes, so that, to come at their contents, no more was necessary than to *break the seal*, which this woman appears to have done; and when the seal was thus broken, she had no more to do than to *pour out* the liquid ointment, which she could not have done had she broken the bottle. The bottles which contain the attar of roses, which come from the East, he adds, are sealed in this manner.

## AMETHYST.

THERE seems to be no reason for doubting the propriety of rendering the Hebrew *achleleh*, and the Greek *amethystos* by *amethyst*. Pliny says the reason assigned for its name is, that though it approaches to the color of wine, it falls short of it, and stops at a violet color. Others think it is called amethyst, because its color resembles wine mixed with water; and in this view, also, it derives its name from *a* negative, and *methy*, *wine*.

The oriental amethyst is an extremely rare gem. If heated it loses its color, and becomes transparent, in which state it is hardly distinguishable from the diamond. See *Jacinth*.

## AMIANTHUS.

THIS is a greenish or silvery-white mineral, of fibrous texture, which is generally known under the name of Asbestos; a term derived from the Greek, and signifying 'unquenchable,' 'indestructible by fire.'

This mineral, and particularly a silky variety of it, in long slender filaments, was well known to the ancients, who made it into a combustible kind of cloth, in which they burned the bodies of their dead, and by which means they were enabled to collect and preserve the ashes without mixture. This cloth was purchased by the Romans at an enormous expense. Pliny states, that he had seen table-cloths, towels, and napkins of amianthus taken from the table at a great feast, thrown into the fire, and burned before the company; and by this operation rendered cleaner than if they had been washed.

From its peculiar property of not being destroyed by fire, the term *amianthus* is figuratively used for *imperishable*, *indestructible*. In 1 Peter i. 3, 4, we read, 'Blessed be the God and Father of our Lord Jesus Christ, who, according to his great mercy, hath begotten us again unto a lively hope, by the resurrection of Jesus Christ from the dead; to an inheritance incorruptible and undefiled, and that fadeth not away.' This blessed inheritance is called *aphtharton*, *incorruptible*, because it will not, like the earthly Canaan, be corrupted with the sins of its inhabitants (Lev. xviii. 28), for into the heavenly country entereth nothing that defileth, Rev. xxi. 7. It is declared to be *amianthon*, *indestructible*, because it shall neither be destroyed by the waters of a flood, as this earth has been, nor by fire, as in the end the earth will be; and it is to be *amaranton*, *unfading*, because its joys will not wither, but remain fresh through all eternity.



## B E R Y L.

THE Beryl is now universally called 'topaz' by modern jewellers, and, when perfect and free from blemishes, is a very valuable gem. It is very rare, however, in this state. It is of the number of those gems found only in the round or pebble form. They are ever of a fine yellow color, but they have this, like the other gems, in several different degrees. The finest of all are of a true and perfect gold color; but there are some deeper, and others extremely pale, so as to appear scarcely tinged.

Lamy suggests that the word *chrysolite* may have been a general name for all precious stones which inclined to a gold color; but this does not imply that it was not given to such particular ones as, having no other color mixed with it, shine like pure gold. That this was the true color of the *tarshish* or *chrysolite*, is evident from Dan. x. 5, 6, and Cant. v. 14.

## C A R B U N C L E.

THE Hebrew word, which in our Bible is translated *carbuncle*, is in the LXX., Josephus, and the Vulgate, rendered *emerald*. By the ancients the emerald was a gem much in request; they denominated it *emargdus*, and are said to have procured it from Ethiopia and Egypt. It is one of the softest of the precious stones, and is almost exclusively indebted for its value to its charming color. The brilliant purple of the ruby, the golden yellow of the topaz, the celestial blue of the sapphire, are all pleasing tints; but the green of the emerald is so lovely, that the eye, after glancing over all the others, finds delight in resting upon this. In the Apocalypse, the rainbow is compared to an emerald (ch. iv. 3), no doubt from its color. See *Emerald*.

## C H A L C E D O N Y.

THIS stone is only mentioned in Rev. xxi. 19. Parkhurst states that Arethas, who has written an account of Bithynia says, this gem had its name from Chalcedon, a city of the country opposite to Byzantium, and that it was in color like a carbuncle. It is still found in considerable quantities in this part of upper Asia.

## CHRYSO PRASUS.

PLINY classes this gem among the beryls, the best of which, he says, are those of a sea-green color; after these he mentions the 'chrysoberyls,' which are a little paler, inclining to a golden color; and next, a sort still paler, and by some reckoned a distinct species, and called *chrysopterus*, the color of which, he elsewhere observes, resembles the juice of a leek, but somewhat inclining to that of gold. Hence, its name compounded of *chrysos*, gold, and *prasos*, a leek. It is mentioned in Rev. xxi. 20.

## CRYSTAL.

THIS gem is called in Hebrew *kerech*, from its smoothness, and resemblance to ice. It may be observed, says Parkhurst, that the Greek name for crystal primarily signifies ice, and perhaps the LXX. meant it in the sense of ice or frost, in Ezek. i. 22, where the Hebrew may be rendered after Bate, 'as the glittering of frost, dazzling.' So the Hebrew word is rendered 'frost,' and 'ice' in several passages.

## DIAMOND.

THE diamond, or adamant of the ancients, is the most valuable of gems, and the hardest of known bodies. When pure, it is perfectly transparent; but though for the most part colorless, it is sometimes found otherwise.

The word in Exod. xxviii. 18, and chap. xxix. 11, which our translators have rendered 'diamond,' is *jahlem*, which the LXX. and the Vulgate understand to be the jasper, and Josephus the sapphire. Braunius argues it to be the diamond, on the following grounds:—First, it is by no means probable that the diamond, which is the most beautiful gem, should be omitted in the high priest's pectoral; as it is, if this word do not denote it. And, secondly, that the etymology of the word shows it to be the diamond. The word *jahlem* comes from a word which signifies *to break in pieces*; and it is well known that the diamond easily breaks all other precious stones, though it is itself easily broken to pieces with a hammer. In reply to the objection that the diamond was not known so early as the days of Moses, this writer argues, that the

engraving on the precious stones in the high priest's breast-plate, must have been effected by it, since no other substance could be found sufficiently hard for the purpose. This, however, is a *mis-*take, for it is now known that such engraving was commonly *done* by a hard stone, called 'Smir,' or 'Smiris.' John, in Rev. xxi. 19, 20, where he is thought by several writers to have an eye to *the* stones in the high priest's pectoral, does not mention the diamond; which, perhaps, should have some weight. The word translated 'diamond,' in Jer. xvii. 1, is not the same as this, but *shemir*.

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### EMERALD.

WE have already given the reasons that have been adduced for supposing the *carbuncle* of the English bible to be the *emerald*.

This gem was known among the ancients by the name of *anthrax*; it is of the same degree of hardness with the sapphire; its color is a deep red, with an admixture of scarlet; but when held up against the sun, it loses its deep tinge, and becomes of the color of burning charcoal—whence the propriety of the name which the ancients gave it.

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### JACINTH.

THIS precious gem, which is mentioned in Rev. xxi. 20, where it is called in the Greek text hyacinth, as it also is in Pliny, is now thought to be the amethyst of the moderns. The amethysts of the ancients are now called garnets.

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### JASPER.

THE Greek and Latin name *jaspis*, as well as the English jasper, is plainly derived from the Hebrew *jaspek*, says Parkhurst, and leaves little doubt what species of gem is meant in Exod. xxviii. 20, Ezek. xxviii. 13, &c. The jasper is a genus of *scrupi*, of a complex irregular structure, of great variety of colors, and emulating the appearance of the finer marbles, or semi-pellucid gems,

## MARBLE.

THE LXX., Vulgate, and Aquila and Theodotion, understand by the Hebrew *shesh*, *parian-stone*, or *marble*, which is of a fine white color. Its name is derived from the island of Paros, where it is procured. Among the materials which David provided for building the temple, was this fine valuable stone (1 Chron. xxix. 2); and it was also employed for laying the pavement in the palace of Ahasuerus, Esther i. 6.

The finest Grecian sculpture that has been preserved to the present time is of Parian marble.

## ONYX AND SARDONYX.

If we may judge from the variety of renderings which have been given by the LXX. of the Hebrew word *shohem*, they do not appear to have had any certain idea of the kind of stone which it denoted. They translate it variously, topaz, emerald, beryl, sardonyx, sapphire, and onyx. The Vulgate always renders onyx. Braunius takes it to be the sardonyx, which according to Pliny is a precious stone of a flesh color, inclining to white.

The onyx, which is a kind of chalcedony, derives its name from the Greek language, and has been given to it on account of its resemblance in color to the whitish band at the base of the human nail. The distinction which appears to be made between onyx and sardonyx, arises from the colors of the former being arranged either concentrically, or in a somewhat confused manner, and those of the latter in regular stripes or bands. Of the sardonyx, the ancients made those beautiful cameos, many of which still ornament our cabinets.

This kind of stone was found with the gold and bdellium of the river Pison in the garden of Eden (Gen. ii. 12), and in Exod. xxviii. 9, 10, Moses is directed to take two onyx stones, and engrave on them the names of the children of Israel. From 1 Chron. xxix. 2, we find that the name of *shohem* or onyx, was given to a kind of marble, as it is by no means probable that David found the gem so named, 'in abundance,' for the temple.

## PEARLS.

THESE substances, which are found in a testaceous fish, resembling an oyster, though esteemed of the number of gems by our jewellers, and highly valued, proceed only from a distemper in the creature that produces them, analogous to the bezoars, and other stony concretions in several animals of other kinds.

Pearls are only once mentioned in our version of the Old Testament (Job xxviii. 18), and the propriety of introducing them in this place has been much and justly contested. The Hebrew word in the text is *gebish*, which in some passages is used for hail (Ezek. xiii. 11, 13; xxxviii. 22), and when applied to precious stones seems most likely to denote the crystal; and so it has been understood by the LXX.

But as pearls are so commonly spoken of in the New Testament, it has been thought strange that they should not at all appear in the prophetic writings. The learned Bochart has accordingly maintained that there are Hebrew words in the Old Testament which unquestionably denote pearls, although unnoticed by all the translators. That the word *bedolah* (Gen. ii. 12) signifies the pearl, he thinks is evident, because the country of Havilah abounds with these substances more than any other place in the world; and because the manna (Numb. xi. 7), is compared to *bedolah*, in consequence of its roundness and whiteness. The word *dar* in Esth. i. 6, is also thought to denote *pearl*, as it is called in the Arabic: besides that the Hebrew word properly denotes something *round*. But whatever degree of credit these conjectures may seem to deserve, there is little doubt that the word *peninim*, in Job xxviii. 18, Prov. viii. 11, and several other places, rendered *rubies* in our bible, does really signify *pearls*. Hence, as Bochart has observed, the words *pinna*, *pinninos*, *lithos*, *pinnikon*, are retained in Greek and Latin, either for the pearl-oyster, or for the pearl itself.

Aquila renders the word in Job, by *things to be looked at, conspicuous, illustrious*, plainly referring to the meaning of the verb *pench*; and it is shown by Bochart, that pearls were estimated at a very high rate, not only by the Jews, but by the Romans, and even by the Medes, Persians, and Indians.

In Matt. vii. 6, our Lord cautions his disciples not to 'cast their pearls before swine,' in conformity with a common mode of speaking among the Rabbins, who called the precepts of wisdom 'pearls.' Thus, also, in Matt. xiii. 46, the gospel is compared to 'a pearl of great price.'

## RUBY.

IN the preceding article we have stated it to be probable that the Hebrew word *peninim*, rendered *ruby* in our Bible, denotes the pearl, rather than this precious gem.

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## SAPPHIRE.

THIS beautiful gem has preserved its original name in most languages, and there is no reason to doubt its identity.

The oriental sapphire is a gem of blue color, the shades of which vary from a full and deep tint to a nearly colorless appearance. Hence the 'God of Israel' is represented as having 'a paved work of sapphire stone' under his feet, and 'as it were the body of heaven in his clearness,' Exod. xxiv. 10. Ezekiel also compares the throne of God to a sapphire, ch. i. 26.

Jeremiah describing the former appearance of the inhabitants of the holy city, says, 'Her Nazarites were purer than snow, they were whiter than milk; they were more ruddy in body than rubies, their polishing was of sapphire' (Lam. iv. 7); and the bride says of her beloved, that 'his belly is as bright ivory overlaid with sapphires,' Cant. v. 14. The reference in each of these passages seems to be to the fine color of the sapphire, in connexion with the delicate whiteness of the marble:—the snowy whiteness of the skin was heightened by the intersecting veins, which were of the color of sapphire.

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## SARDIUS, OR SARDINE.

THE Sardius and Sardine of John (Rev. xxi. 20), is thought to be the same with the *adem* of Moses (Exod. xxviii. 17) and Ezekiel (ch. xxviii. 13) but we have no means of ascertaining this fact.

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## TOPAZ.

So the LXX., Josephus, and others, translate the *peted* of the Old Testament, and the *topazion* of John; but it is certain that the topaz of the ancients was a very different stone from that so called

by the moderns : theirs being of a pale green color intermixed with yellow, whereas, ours is blue, pink, or white. The ancient topaz, which is said to have derived its name from an island in the Red Sea, is probably the same with our chrysolite.

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As most of these stones are only mentioned in the description of the high priest's breastplate (Exod. xxviii. 17, &c.), and in that of foundation of the church (Isa. liv. 11, 12), and of the heavenly Jerusalem (Rev. xxi. 19—21), it can excite no surprise that we are unable to ascertain the precise qualities which they severally possessed. It has, indeed, been thought by some writers, that the apostle in describing the foundations of the new Jerusalem had an eye to the pectoral of the high priest, and that he enumerates the stones in the same order as Moses had done. This, however, is by no means probable, and every attempt hitherto made to trace the connexion between them has utterly failed. In opposition to that excessive love of spiritualizing every passage and thing occurring in the Bible, and which finds in each of these stones some recondite and important meaning, Bishop Lowth has justly observed, that 'they seem to be general images to express beauty, magnificence, purity, strength, and solidity, agreeably to the idea of the Eastern nations; and to have never been intended to be strictly scrutinized, or minutely and particularly explained, as if they had each of them some precise moral and spiritual meaning.

## CHAPTER II.

### EARTHS.

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WE must again solicit the reader's indulgence, for some occasional departures from the method which an adherence to a strictly scientific analysis would require.—We are greatly averse from multiplying divisions, where no advantages are to be obtained by so doing.

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### BRIMSTONE.

THIS well-known preparation of sulphur is frequently mentioned in the sacred writings, as one of the materials which God has appointed to carry into effect his righteous decrees of punishing incorrigible sinners; and also as a very significant symbol of desolation and barrenness. In the Hebrew Scriptures it is called *goph-rith*, which the LXX. render *theion*, from *theios*, *divine*, for which Parkhurst adduces the following reasons, from Holloway.

'Sulphur was eminently applied among the idolaters of various nations to their religious purifications. One method of purifying persons among the Greeks was by going round him three times, and sprinkling him as often, with a laurel bough, or with a torch of some resinous wood, first lighted at the altar, and then dipped in the holy water, which they consecrated with a mixture of salt and sulphur; for, as the solar fire or a demon in the sun's orb, was their chief acting god, so they thought fire was of sovereign virtue to purify and make them holy; and therefore, to secure effectually its said supposed virtue, they took care to have it in double and triple respects, as in a torch of some turpentine tree, and that set on fire, with the addition of sulphur.

God made it an instrument of his *vengeance* on the heathen and other delinquents, condemning them and their land to brimstone and fire forever. See Job xviii. 15; Psalm xi. 6; Deut. xxix. 23; Isa. xxxiv. 9; and Jude ver. 7, on the overthrow of Sodom and Gomorrah.



## PITCH.

In the English Bible there are two Hebrew words which are rendered 'Pitch'—*zepheth* (Ex. ii. 3, Isaiah xxxiv. 9), and *chemer* (Gen. vi. 14); the latter of which is again rendered slime, in Gen. xi. 3, and xiv. 10. They are both thought to be used for *asphaltum* or *bitumen*, a brittle substance of a black or brownish color, and of a consistence somewhat harder than pitch.

The ancients were well acquainted with this substance, which is nothing more than mineral tar in an indurated or hardened state. It is found on the surface of volcanic productions; and it floats in solid pieces, and in considerable abundance, on the Asphaltic Lake, which has thence received its name.

It is also found near ancient Babylon, and there is reason to suppose that the mortar so celebrated among the ancients, and with which the walls of Babylon were cemented was nothing more than a preparation of this substance, Gen. xi. 3. We are informed by Herodotus, that a composition of heated bitumen mixed with the tops of reeds, was used by the ancients as a cement. This account is confirmed by modern travellers, who assert that the remains of buildings have been discovered, in which bitumen was formerly thus employed. It was doubtless the pitch used by Noah, for closing the interstices of the Ark (Gen. xi. 14); and by the mother of Moses, to render the vessel in which she placed her infant son on the Nile (Ex. ii. 3,) water-proof. The Arabs still use it for similar purposes.

Josephus states that bitumen was used among the ingredients for embalming the dead.

## SALT.

THIS well-known fossil substance is several times mentioned in scripture; and from the uses to which it was appropriated by the Jewish people, it will require a notice of some length. Its Hebrew name is *melech*, from a verb which signifies *to melt*, and it is well known to be a body soluble by water.

The use of salt in cleansing and preserving bodies from putrefaction, was the occasion, no doubt, of its being prescribed to accompany all the sacrifices offered under the Mosaic law: 'Every oblation of thy meat-offering, shalt thou season with salt; neither shalt thou suffer the salt of the covenant of thy God to be lacking from thy meat-offering: with all thine offerings thou shalt offer salt,' Lev. ii. 13.

Salt was the opposite to leaven, for it preserved from putrefac-

tion and corruption, and signified the purity and persevering fidelity that were necessary in the worship of God. Every thing was well-seasoned with it, to signify the purity and perfection that should be extended through all parts of the divine service, and through the hearts and lives of God's worshippers. It was called the salt of the covenant of God; because as salt is incorruptible, so was the covenant made with Abraham, Isaac, Jacob, and the Patriarchs, relative to the redemption of the world by the incarnation and death of Jesus Christ. Among the heathens, salt was a common ingredient in all their sacrificial offerings, and as it was considered essential to the comfort and preservation of life, and as an emblem of the most perfect corporeal and mental endowments, so it was supposed to be one of the most acceptable presents they could make to their gods, from whose sacrifices it was never absent.

Parkhurst particularly notices the phraseology employed in the injunction, Lev. ii. 13; 'salt the purifier of (i. e. appointed by) thy Aleim,' whence he infers that salt, added to all the sacrifices, was a type of the purity or sinlessness of Christ, and of that which purifies believers. But that which purifies believers in *faith* in Christ and his atonement (2 Cor. v. 20, 21), and the consequent hope of seeing God through him. Acts. xv. 9; 2 Pet. i. 4; 1 John iii. 3; 1 Cor. iii. 21. Salt was therefore a type of that purifying faith and hope which is the gift of the Holy Spirit, Romans xv. 13; 1 Peter i. 22; Eph. ii. 8.

In Numb. xviii. 19, and 2 Chron. xiii. 5, we read of 'a covenant of salt,' which most commentators have understood as a reference to the covenant which God had made with his people, which covenant had been ratified by a purification offering, or sacrifice, with which, as we have seen, it was essential that salt should be offered. Mr. Taylor, however, has suggested another idea, which deserves attention. He conceives that the 'covenant of salt' refers to an engagement in which salt was used as a token of confirmation; and he adduces the following among other instances of such a usage, from Baron du Tott.

'Moldovanji Pacha was desirous of an acquaintance with me, and seeming to regret that his business would not permit him to stay long, he departed, promising in a short time to return. I had already attended him half way down the stair-case, when stopping, and turning briskly to one of my domestics who followed me, 'Bring me directly,' said he, 'some bread and salt.' I was not less surprised at this fancy than at the haste which was made to obey him. What he requested was brought; when, *taking a little salt between his fingers, and putting it with a mysterious air on a bit of bread, he ate it with a devout gravity, assuring me, that I might now rely on him.* I soon procured an explanation of this significant ceremony; but this same man, when become Visir, was tempted to violate this oath, thus taken in my favor. Yet if this solemn contract be not always religiously observed, it serves, at least, to 'moderate the spirit of vengeance so natural to the Turks.' The Baron adds, in a note; 'The Turks think it the blackest ingratitude to forget

the man from whom we have received food ; which is signified by the bread and salt in this ceremony.'

We ought to notice the readiness of the Baron's domestics, in proof that they, knowing the usages of their country, well understood what was about to take place. Also, that this covenant is usually punctually observed ; and where it is not so, that it has a restraining influence on the party who has made it ; and his non-observance of it disgraces him.

Mr. Harmer has well illustrated the phrase, 'We were salted with the salt of the palace' (Ezra iv. 14), and the reader will be pleased with his remarks. 'It is sufficient to put an end to all conjecture, to recite the words of a modern Persian monarch, whose court Chardin attended some time about business. Rising in a wrath against an officer who attempted to deceive him, he drew his sabre, fell upon him, and hewed him in pieces, at the feet of the Grand Visir, who was standing, and whose favor the poor wretch courted by this deception. And looking fixedly on him, and on the other great lords that stood on each side of him, he said, with a tone of indignation, 'I have then such ungrateful servants and traitors as these to eat my salt!' 'Look on this sword ; it shall cut off all these perfidious heads.'" It is clear that this expression, 'eating this prince's salt,' is equivalent to receiving a maintenance from him.

Parkhurst says, I am well informed that it is a common expression of the natives in the East Indies, 'I eat such an one's salt ;' meaning, I am fed by him. Tamerlane, in his institutes, mentioning one Shaw Behaun, who had quitted his service, joined the enemy, and fought against him : 'At length,' says he, '*my salt which he had eaten* overwhelmed him with remorse : he again threw himself on my mercy, and humbled himself before me.'

Although salt in small quantities may contribute to the comminuting and fertilizing some kinds of stubborn soil, yet, according to the observation of Pliny, all places where salt is found are barren, and produce nothing.'

The effect of salt, where it abounds, on vegetation, is described by burning (Deut. xxix. 22). 'The whole land thereof is brimstone and salt of burning (or burning salt) ; it is not sown, nor bears, nor any herb grows therein, like the overthrow of Sodom, &c. Volney, speaking of the borders of the Asphaltic Lake, or Dead Sea, says, 'The true cause of the absence of vegetables and animals, is the *acid saltiness* of its waters, which is infinitely greater than that of the sea. The land surrounding the lake, being equally impregnated with that saltiness, refuses to produce plants ; the air itself, which is by evaporation loaded with it, and which moreover, receives vapors of sulphur and bitumen, cannot suit vegetation ; whence that dead appearance which reigns around the lake. So a 'salt land' (Jer. xvii. 6,) is the same as 'the parched places in the wilderness,' and is descriptive of barrenness ; as 'saltiness' also is, Job xxxix. 6 ; Psalm cvii. 34 ; Comp. Ezek. xlvii. 11 ; Zeph. ii. 9.

Hence, the ancient custom of sowing an enemy's city, when taken, with salt in token of perpetual desolation (Judg. ix. 45); and thus in after times, the city of Milan was burnt, rased, sown with salt, and plowed by the exasperated emperor Frederic Barbarossa.

From the mention not only of sulphur or brimstone, but of salt, in Deut. xxix. 23, (comp. Gen. xiv. 3,) we may collect that the latter, as well as the former, was employed by Jehovah in the destruction of Sodom and Gomorrah, and may thence explain what is said of Lot's wife (Gen. xix. 26): 'and she became a pillar of salt;' namely, while she was looking with a wishful eye towards Sodom, she was overtaken by the miraculous *salo-sulphureous* shower, and thereby fixed and incruusted like a statue.

In Syria, where there are salt lakes, it is probable that comparisons, and even proverbs were taken from the properties of the article they furnished. So we read, 'salt,' that is, in its genuine state, 'is good, but if it have lost its saltiness, wherewith will ye season it?'—How restore to it any relish? The surface of the salt lakes, and also the thinner crust of salts, next the edges of the lakes after rains, and specially after long continued rains, loses the saline particles, which are washed away and drained off; yet it retains the form and appearance of salt, like the most perfect. For this reason, those who go to gather salt from the lakes, drive their horses and carts over this worthless matter, and consequently trample it into mere mud and dirt, in order to get some distance into the lake, where the salt is better: and often they are obliged to dig away the surface from thence, to obtain the salt, pure and pungent.

From Ezek. xvi. 4, we learn that it was the custom to salt the bodies of new born infants; which Jerom conceived to have been intended to dry up the humidity and to close the pores of the skin. It is said that the Tartars and the Greeks still continue the practice.

Salt is the symbol of wisdom (Col. iv. 6), and of perpetuity and incorruption (Numb. xviii. 19; 2 Chr. xiii. 5), as well as of barrenness and sterility.

The only passage which remains to be noticed is Mark ix. 49,—'For every one shall be salted with fire, and every sacrifice shall be salted with salt,'—an exceedingly obscure passage, which has exercised the ingenuity of many learned men. It would be useless to bring before the reader the various conjectures and readings which have been proposed of the text: they may be seen in Pole, Wolfius, and Koecher; or the most likely ones may be seen in Bloomfield, who closes an elaborate note by stating that he cannot accede to any interpretation he has yet seen: all being liable to objections.

Without affirming that the following interpretation is free from what appears to attach itself to all others, it is submitted as affording a good sense of the passage.

'For every one shall be salted with fire, and every sacrifice shall be salted with salt.'—This sentence connects with the foregoing; as the particle *for*, which is casual, shows. In the preceding verse we read, that offenders shall be cast into the Gehenna of fire; where the fire shall perpetually burn them, and the consciousness, of their crimes shall perpetually torment them. For every one—that is, every one who is cast into the Gehenna of fire—shall be seasoned, shall be preserved in this fire. This fire shall act upon the wicked, who are thrown into it, as brine acts upon the meat, over which it is poured. It shall consolidate, not consume them. Unlike all other fires, it shall not destroy life, but prolong it. Such is the state of every incorrigible offender. It remains to be shown, what is the portion reserved for the faithful. Every faithful disciple, who is so truly devoted to the Christian cause as to be ready to die in its defence, is here represented under the figure of a sacrifice, *seasoned with salt*. Every sacrifice, says Christ, thus prepared for, and devoted to me, shall be considered as seasoned with salt. The Jews were taught to understand that sacrifices, so seasoned, were *acceptable* to the Lord. Every sincere disciple is here, by anticipation and prolepsis, denominated a *sacrifice*. By this appellation he was forewarned of an event, which the sword of persecution would not fail to accomplish. With a like view to sacrifices Paul thus writes to the Philippians: *If I be poured out*; and to Timothy: *For I am now ready to be poured out*.

Thus the punishment hereafter to be inflicted on the wicked, and the recompense reserved for the faithful, are expressed in terms fetched from those sacrificial rites with which the Jews were conversant. Commentators conceiving the sense to be, *consumed* by fire, have proposed to read—instead of *shall be salted*—*shall be destroyed*. But the very reverse of *consumed* is the sense intended. A learned critic has indeed said, that 'as to salting with fire, nothing can be made of it.' But much, and much more to the purpose may be made of it than can be made of any word which criticism, in its ardor to amend, may have undertaken to substitute.

## SOAP.

THE LXX. render *berith*, in Jer. ii. 22, *the herb*; Jerom and the Vulgate, *the herb borith*. In Mal. iii. 2, the LXX. translate *berith mekbesim*, by *the herb of the washers*, and the Vulgate, *the herb of fullers*. 'With respect to the herb borith,' says Goguet, 'I imagine it is sal-worth (salt-wort). This plant is very common in Judea, Syria, and Arabia. They burn it, and pour water upon the ashes. The water becomes impregnated with a very strong lixivial salt, proper for taking stains or impurities out of wool or cloth.' Micha-

Elia, however, thinks that *berith* means, not the herb or plant *Kali*, but the alkaline or lixivial salt procured from the ashes of that and other plants; though he confesses that in Jer. ii. 22, it may also be rendered soap, made of such salt. But he understands Mal. ii. 2, of the alkaline salt itself, such as fullers indeed use, but which in this passage he apprehends is mentioned only in respect to its use in liquifying and purifying metals (ver. 3), by causing their impurities to vitrify, and melt down into scoriae, thus leaving the metal pure. In like manner he interprets *ber*, in Isa. i. 25, 'I will melt down, *as* (with) alkaline salt, thy dross, and I will remove all thy base metal.'

### NITRE.

In conjunction with the soap or alkali of the preceding article, the prophet Jeremiah (ch. ii. 22) mentions nitre: 'Though thou wash thee with nitre, and take thee much soap, yet thine iniquity is marked before me, saith the Lord God.'

This substance, *nitre*, differs very little from the *berith* we have just noticed, being a pure and native salt, extremely different from our nitre, and indeed, from all the other native salts. It is a fixed alkali, plainly of the nature of those made by fire from vegetables. *Natrum*, whether native or purified, dissolves in a very small quantity of water; and this solution is in many parts of Asia used for washing, where it is also made into soap, by mixing it with oil. The natives sweep it from the surface of the ground, and call it soap-earth. The earliest account we have of it is in the Scriptures where we find that the salt called nitre, in those times, would ferment with vinegar, and had an abstersive quality, so that it was used in baths, and in washing things.

Solomon compares the singing of songs to a heavy heart to the contrariety of vinegar and nitre, which nitre, with that mentioned in the passage already cited, exhibits properties that perfectly agree with this salt, but not at all with our nitre or saltpetre.

The ancient Egyptians are said to have made great use of this nitre for the preservation of their dead, by macerating them in it for several months previously to their being embalmed.

### VERMILION.

THIS beautiful color is only spoken of in two passages of scripture; in one of which it is referred to as being used in decorating the interior of splendid buildings (Jer. xxii. 14); and in the other

as appropriated to the purpose of drawing or painting. Ezek. xxiii. 14.

The vermilion in present use is well known as a preparation of mercury and sulphur; but Pliny informs us, that that which was called by the Greeks *milton*, was found in silver mines, in the form of reddish sand, and was much used by the Romans in his time as a paint, and formerly applied to sacred purposes. Comp. Ezek. xxiii. 14. Bochart observes, that there is a lake in Africa, called from the Phœnicians *Sisari*, so named, he thinks, on account of the vermilion, or red paint (called by the Hebrews *aseer*) for which those parts were famous; and also of the neighboring river, called likewise, in Latin, *Rubicatus*,—red-colored.

## CLAY.

THIS well known and useful substance is spoken of in several passages of scripture, from which it is evident that it has been appropriated to the manufacture of various useful and ornamental articles from a very early period of the world.

There is only one passage among these, however, that requires elucidation, and as it has occasioned much embarrassment to biblical critics, the reader will not be displeased at the length of the following article, from the pen of the ingenious Landseer, which clears up the sense of the sacred writer, and renders manifest the profundity and accuracy of his knowledge. The passage elucidated is as follows: 'Hast thou commanded the morning since thy days; and caused the day-spring to know his place, that it might take hold of the ends of the earth, that the wicked might be shaken out of it? It is turned as clay to the seals; and they stand as a garment. And from the wicked their light is withholden, and the high arm shall be broken,' Job xxxviii. 12—14.

Dr. John Mason Good, who has favored the public with a new and luminous arrangement and translation of this extraordinary book, affirms, that there is hardly any passage in the whole poem that has been supposed so difficult of elucidation as that above cited; 'nor,' continues he, 'have I met with a single rendering that is perspicuous, or will bear a critical examination. Schultens says, he has compared and examined with great attention the different attempts of interpreters to explain the fourteenth verse, but confesses, that from none of them has he been able to extract its meaning; and even Reiske, the boldest critical expositor we are possessed of, finishes with exclaiming, 'Fateor me non capere.'

Now, Schulten and Reiske have failed of their object, not (as may well be supposed) from lack of scholarship or of judgment, but for

want of the local antiquarian knowledge which the ancient cylinders, recently dug up at Babylon, supply; and Dr. Good himself, in this instance (however admirably he has, in other respects, treated his subject), is, from the same cause, not a whit more successful than his predecessors. His version of the passage in question is—

Within thy days hast thou ordained the dawn,  
And appointed to the day-spring his post,  
That they should lay gold on the skirts of the earth,  
And evil-doers be terrified away from it?  
Canst thou cause them to bend round as clay to the mould?  
So that they are made to set like a garment?

As the sense of these verses is obscure,—as it differs from the rendering of every other Hebrew scholar that I have consulted, and does not appear consistent with common sense or itself, even with the help of two pages of notes,—I shall venture to argue, that it cannot be the true meaning of the original. We may safely believe that evil-doers were not, in the days of Job, any more than at present, terrified away from skirts, or other places, where gold was laid. Neither does the substitution of *mould* for *seal* at all clear the sense, but the contrary; for Dr. Good, remarking on this verse, says, ‘Canst thou cause them to bend round as clay to the mould?’ would be rather more literally rendered if the *to* were omitted, and if it were written, ‘Canst thou cause them to bend round as clay the mould?’ But here again, in his aversion to the idea of a seal, he says this really means, not as clay causes the mould to bend round, but ‘as the mould doth clay.’

I shall now request attention whilst I, fact by fact, and inference by inference, pursue the meaning of these verses, in the manner that appears to me the most simple and perspicuous; at the same time not disregarding that impressive opening of the chapter containing them, which, to the end of time, should sound awfully in the ears of biblical critics.

The chapter begins, ‘Then the Lord answered Job out of the whirlwind, and said, ‘Who is this that darkeneth counsel by words without knowledge?’ and after those grand interrogations which have been so frequently admired, respecting the formation of the earth, clouds, and sea, he proceeds: ‘Hast thou commanded the morning since thy days? Hast thou caused the day-spring to know his place that it might take hold of the ends of the earth, that the wicked might be shaken out of it?’—

Some slight degree of confusion between the light of morning, and that religious light, or day-spring of truth and justice, to which it is likened, must here be confessed to exist (at least in the English translation); and for the transition from literal light, to light personified and invested with knowledge and power, the idiom of the Hebrew language, or the elevated ardor of the poet’s imagination, must be accountable. If it is not critical, it is grand; and scarcely does the want of grammatical construction throw even a faint shade over the general meaning of the sentence; nor does it



affect at all the metaphor of the seal that follows, and which it is my purpose to explain. The day-spring to be understood in the second interrogation, is poetically adverted to by St. Luke (cñ. i. ver. 7, 8), on the occasion of Zechariah's prophecy respecting the appearance of St. John the Baptist, the aurora of the Sun of Righteousness; where he says, 'The day-spring from on high hath visited us, to give light to them that sit in darkness.' In Job, however, the personified day-spring is made to 'take hold of the ends of the earth, that the wicked might be shaken out of it;' that is to say, their wickedness being brought to light, the punishment which legal justice inflicts, shall follow the exposure. This meaning results even to the Bible readers of the present day; but what more terrible sentiment must have been felt by those disputants who, throughout the poem, had been darkening counsel by words without knowledge, it might be thought foreign to our antiquarian purpose to attempt to explain.

The next verse proceeds, 'It is turned as clay to the seal, and they stand as a garment,' or, as the latter member of the sentence is rendered by Junius and Tremellius, 'they present themselves like her coverings.'

It seems here proper to note, that, as the text implies—the sealing substance of the land of Uz, and probably that of the nations on the banks of the Euphrates, at this remote period was clay—the ooze of that river: the very same substance, levigated, perhaps, of which the stamped Babylonian bricks are formed; and the better sort of that pottery whose fragments abundantly bestrew the sites of Babylon and Susa, even at present—the potter's clay of the ancient prophets, and what is still used for the purpose of sealing in some parts of the East. It may also be worthy of remark, that of the various substances (such as waxes, pastes, &c.) on which I have tried to impress these ancient signets, I have found clay the fittest for the purpose, both of receiving and retaining the impression; and though a Copernican objector might argue here, that it is not the light of the morning which is turned, but the earth toward the light, yet this would be casuistry: the poet who wrote this wonderful book, probably believed otherwise; or, if this point be still regarded as of any importance, it may be answered, So does the signet which is compared to the earth, in fact, turn (on its axis, during the operation of impressing it) toward the clay; and if it be true, as Volney has asserted, that some of the oriental nations of antiquity believed the earth to be of a cylindrical form, and have so represented it among their hieroglyphics, the metaphor would be still more complete; and the words contained in our English translation of the preceding verse, 'that it might take hold of the ends of the earth,' be expressly correct, whether we regard the word *it* as referring to the light of morning, or as denoting that searching ray of Providence which brings moral turpitude to view. The latter, however, is the meaning to which the text before us has more especial reference. 'It is turned as clay to the seal, and they stand as

present themselves as a garment,' means, that the wicked spoken of in the preceding verse, stand confessed, or exposed to view, like the embroidery of a garment at the approach of light.—Or, rather, I think, when this verse is regarded together with the preceding, the analogy is, that the wicked, and the dark contents of the engraving, are both cast off, as a garment is cast off,—a thing that has fitted and adhered.

It is the blending of the literal and the figurative meanings together (which is done in all the translations that I have had an opportunity of consulting), that has somewhat perplexed the passage, and conspired with their ignorance of cylindrical signets, and their non-advertence to the science of astronomy, to perplex also those commentators who have busied themselves in its explication. They have fancied that the seals of the land of Uz could be of no other form than that of the seals which are in modern use. But now that these revolving seals are produced,\* I should expect that the clouds of learned conjecture which have obscured the subject would be dispelled, and the meaning of this mysterious passage shine forth like the morning light, in the superb metaphor before us; for, from the whole passage, when viewed with the signets, results an interesting and beautiful similitude between three dissimilar things; that is to say, between the light of morning beaming on, and passing round, a darkened world, and disclosing its contents; and that intellectual light, emanating from the Deity, which exposes, in their true forms, the dark deeds and moral deformities of the wicked;† and the operation of impressing one of these ancient cylindrical signets on clay, which bends as the cylinder revolves in delivering its impression, stands around it curvally as a garment (till you flatten it while in a moist state), and renders conspicuous to view the dark contents of the intaglio engraving.

That there should exist a similar reference to a signet, perhaps to a signet of a similar kind, in another of the most ancient of poems; that the Grecian lyre of Orpheus should respond to the Hebrew harp of the poet of Job—is another curious fact, which might serve to confirm (if such confirmation were needed) the justness of the poetical analogy before us.

\* These interesting relics of antiquity are of various dimensions. Speaking generally, they are from three-fourths of an inch in length: and from something less than an inch to three inches in circumference. Their form, as above stated, is cylindrical. Some of them are regular cylinders: due allowance being made for the wear and tear they have undergone: but others are not exactly cylinders, having a small degree of concavity or hollowness in their sides, like a dice box: and all of them are perforated longitudinally. On each of these cylinders are engraved a variety of elaborate devices, in *intaglio*. 'Introduce a metal axis,' says Mr. Landseer, who has given a series of beautifully executed engravings of these precious gems, 'and mount one of these engraved gems upon the principle of a garden rolling-stone, it becomes at once a seal, easy to use, and copious in its contents.'

† The words which in Job immediately follow these, are perfectly homogeneous with the explanation which I here venture to submit. 'For, from the wicked their light is withheld,' clearly means, that Providence discloses the evil deeds of the wicked, by means of which their infatuation renders them blind to the approach. The remainder of the 15th verse is easily understood, and has no reference to these cylinders.

But, in justice to the author of the Hebrew or Arabian poem—whichsoever it originally was—I should not quit this text, without noticing also, the depth of *astronomical* knowledge which is contained in it. ‘Hast thou commanded the morning since thy days? Hast thou caused the *day-spring* to know his place, that it might take hold on the ends of the earth?’—when combined with that other sublime assertion of the power of Jehovah, ‘His hand incurvated the flying serpent,’ shows that the poet, and those of his readers whom he immediately addressed, were informed of the *spiral path*;—that is to say, apparent annual path—of the sun through the heavens. The supposition that the author and his readers or hearers were thus informed, gives emphatic and forcible meaning to the question, ‘Hast thou caused the day-spring to know his place?’ because that place varies from day to day. In the vernal season, and at the remote æra of the patriarch, the day sprung from the stars of Taurus; but in the summer seasons from those of Leo.

The justness and profundity of observation that is implied in the text: ‘By his spirit hath he garnished the heavens; His hand incurvated the flying serpent;’ and the creative and presiding power of Jehovah, that is asserted and displayed in it, are not fully manifested, as the passage has commonly been explained.—Not that more is meant than meets the ear, but that what meets the ear cannot also meet the mind, unless it be astronomically regarded: and the generality of annotators have, on the contrary, supposed the words flying, or ‘*crooked serpent*,’ (as it is rendered in the common English Bible), to allude literally to the incurvations of the serpent of earth.

## CHAPTER III.

### METALS.

#### GOLD.

THIS is the heaviest, purest, most ductile, and on these accounts, the most valuable of all metals. It is the most frequently found native; and is, indeed, very rarely found in a state of ore; that is, divested of its metallic form, by its particles being intimately mixed with sulphur; and in the few instances in which it is found thus, it never constitutes a peculiar ore, but is found intermixed among ores of other metals; and most frequently among those of silver, or those in which, though of some other metal, there yet is a large quantity of silver, in which the gold lies in its state of ore. It is sometimes found in masses of considerable size; many of more than a pound weight; these are met with in gold mines, and are called *aurum Obrium*, *Obrium*, but they are very rare; such, however, have been sometimes obtained from the German mines. Its common appearance, in its more loose state, is in form of what is called gold dust: this is native gold in smaller particles, usually, indeed, very small, mixed among the sand of rivers. This is found in many parts of the world, but the greatest quantity is from the coast of Guinea. By all the trials that have been made, gold seems to be the most simple of all substances. It is wholly incapable of rust, and is not sonorous when struck. It requires a strong fire to melt it; is unaltered in that degree of heat which fuses tin or lead; but runs with a less vehement fire than is necessary to fuse iron or copper.

Gold is mentioned throughout the scripture, and the use of that metal, among the ancient Hebrews, in its native and mixed state, and for the same purposes as at present used, was common. The ark of the covenant was overlaid with pure gold; and the mercy-seat, and the vessels and utensils belonging to the tabernacle were of gold, as were those also of the house of the Lord, and the drinking vessels of king Solomon. They made chains, bracelets, and other ornaments of gold, coins and medals, crowns, &c. The mines whence David and Solomon procured the greatest part of their gold, were those of Ophir.

Might not the sixtieth Psalm, and the five others that are distinguished by the epithet, be called 'golden,' on account of their having been, on some occasion, written in letters of gold, and hung up in the sanctuary, or elsewhere? Not, it may be, on account of their

being judged to have a superior excellence to the other hymns of this collection, absolutely speaking, but their being suited to some particular circumstances, which might occasion them to be treated with this distinction. See Isaiah xxxvii. 14.

The works of seven of the most excellent Arab poets, who flourished before the times of Mahommedanism, were called 'Al Moal-lacat,' because they were successively fixed, by way of honor, to the gate of the temple of Mecca; and also, 'Al Modhahebat,' which signifies gilded or golden, because they were written in letters of gold, upon Egyptian paper. The same writer, in a succeeding page, states that the Arabs, when they would praise any one's poems, were wont to say, These are the golden verses of such or such-an-one, which he seems to suppose was derived from the writing of these poems in letters of gold.

## SILVER.

THIS metal, which is equally well known with that of the former article, ranks next to it in value. Like that it has been, from a very early period, coined into money, or at least stamped, for the purposes of exchange, and also manufactured into various kinds of utensils. See Numbers vii. 13, 84; ch. x. 2; 1 Chronicles xxviii. 15, 17, &c.

## AMBER.

IT is evident from the manner in which the prophet Ezekiel speaks of (*cheshet*,) amber (ch. i. 4, 27; and viii. 2), that he did not intend the bituminous substance now so well known under this name. The LXX. render the Hebrew word *electron*, which signifies amber—a mixed metal of gold and silver—and crystal. From this version of Ezekiel i. 4—'And in the midst of it (the whirlwind) as the appearance of *electrum* in the midst of a fire'—it appears that the translators, by *electron* could not mean either amber or crystal; the former of which grows dim as soon as it feels the fire, and shortly dissolves into a resinous or pitchy substance; the latter is scarcely ever put into a fire, or if it were, it could hardly contract any thing from it but soot and dimness. It remains then, that they meant the mixed metal which is much celebrated by the ancients for its beautiful lustre, and which, when exposed to the fire, does, like other metals, grow more bright and shining. Hence the LXX.

by their translation seem to have come very near to the true meaning of the Hebrew word; for as Ezekiel prophesied among the Chaldeans, after Jeholachin's captivity, so here, as in other instances, he seems to have used a Chaldee word; and considered as such, *chemel* may be derived from *nechesch*, copper (dropping the initial n), and the Chaldee *melal*, gold, as it comes from the mine; and so denotes, either a mixed metal of copper and gold, such as the *Æs Pyropum* mentioned in the ancient Greek and Roman writers, and thus called from its fiery color, and the noted *Æs Corinthum* or Corinthian brass: or else *chemel* may signify a fine kind of copper, such as Aristotle says was in color and appearance not distinguishable from gold, and which it is probable the cups of Darius, mentioned by the same author, and the two vessels of fine copper (yellow or shining brass,—*margan*), precious as gold, (Ezra viii. 27) were made. Scheuchzer, who of the various interpretations of *chemel* prefers the last mentioned, adds, that this kind of fine copper is still known in the East Indies by the name of *Suassa*, that it is used in making rings and cups for great men, and is composed of equal parts of gold, and of the reddest copper.

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## COPPER.

THIS metal which of all the imperfect ones approaches nearest to gold and silver, is only mentioned in Ezra viii. 27, in the English Bible; our translators having rendered the word *nechseth* 'brass' in other passages where it occurs; though, according to most interpreters, they have been guilty of an anachronism, the formation of this factitious metal not having been practised, as is thought, till a period long subsequent to the times in which they make it spoken of.

Dr. Adam Clarke, however, seems inclined to justify the propriety of our translation, in some of these passages; and so it would appear does Dr. Geddes, for he adopts the same rendering. The former critic remarks, that the factitious metal commonly called brass, is formed by a combination of the oxide or ore of zinc, called *lapis calaminaris*, with copper; that brass seems to have been very anciently in use, and that the preparation of copper, to transform it into this factitious metal, seems to be very pointedly referred to in Job xxviii. 2: 'Iron is taken out of the earth, and brass is molten out of the stone;'—translated by the Vulgate *Lapis solutus calore, in æs vertitur*; 'the stone liquified by heat, is turned into brass.' Is it going too far to say, that the stone here, may refer to the *lapis calaminaris*, which was used to turn the copper into brass? Because brass was capable of so fine a polish so as to become exceedingly bright; and keep its lustre a considerable time, it was hence used for all weapons of war, and defensive armor, among ancient

nations; and copper seems to have been in no repute, but for its use in making brass.

Parkhurst supposes copper to be called *necheshet*, from the resemblance of its color to that of serpents, (*nechesk*) and remarks that Moses made the serpent, which he was commanded to set up, of copper, Numb. xxi. 9; where the expression is remarkable *wiosh meshesh nechesk necheshet*. So gold is called *zeheb* from its splendor, and silver *keseph*, from its pale color. And as man, no doubt, was acquainted with animals before he was with minerals (Comp. Gen. ii. 19, 20, with ch. iv. 22), it seems highly probable, as this ingenious critic remarks, that the primeval language might, in some instances, and where there was a *similarity of qualities*, describe the latter by names deduced from those which were at first given to the former. And in the present case it is observable, that *copper* is not only of a serpentine color, but resembles those noxious animals in its destructive properties, being in all its preparations accounted poisonous. Dr. Harris proposes to read *netshet*, instead of *necheshet*, which we may derive from the verb *netesh* to dig up, the very meaning of 'fossil' which comes from the Latin word *fadio*, to dig. It is to be regretted, however, that this writer is so fond of conjectural emendations of the sacred text. In the present instance, he does not pretend to say that he is supported by a single MS. or version, as indeed he could not; and therefore his conjecture, however, ingenious, must fall to the ground.

Our translators have rendered the Hebrew word *maroth*, in Exod. xxxiii. 8, and Job xxxvii. 11, 'looking-glass.' But the making mirrors of glass, coated with quicksilver, is an invention quite modern. Dr. Adam Clarke has a note upon the place in Exodus, where our version represents Moses as making 'the laver of brass, and the foot of it of brass of the looking-glasses of the women.' He says, 'Here metal highly polished must certainly be meant, as glass was not yet in use; and had it been, we are sure that looking-glasses could not make a BRAZEN laver. The word, therefore, should be rendered *mirrors*, not *looking-glasses*, which in the above verse is perfectly absurd, because, from those *MAROTH* the *brazen laver* was made. The first mirrors known among men were the clear still fountain, and unruffled lake. The first artificial ones were apparently made of brass, afterwards of polished steel, and when luxury increased they were made of silver; but they were made, at a very early period, of mixed metal, particularly of tin and copper, the best of which, as Pliny tells us, were formerly manufactured at Brundisium. But, according to him, the most esteemed were those made of tin: and he says, that silver mirrors became so common that even the servant girls used them. When the Egyptian women went to the temples, they always carried their mirrors with them. The Israelitish women did the same; and Dr. Shaw states, that the Arab women carry them constantly hung at their breasts.

It may be remarked, that the word 'looking-glass' occurs in our version of Ecclesiasticus xii. 11: 'Never trust thine enemy; for

like as iron [*arg.* brass] rusteth, so is his wickedness. Though he humble himself, and go crouching, yet take heed and beware of him, and thou shalt be unto him as if thou hadst washed a looking-glass, and thou shalt know that his rust hath not been altogether wiped away.' This passage proves, by its mention of rust, that mirrors were then made of polished metal.

The fine brass of Rev. i. 15, and ch. ii. 18, is rendered by the Vulgate *aurichalco*, and Bochart has shown that the term *aurichalcum* was used by the Romans for two kinds of metals, which must not be confounded with each other; the one was native, the other factitious; the one in value almost equal to gold, the other far inferior to it. As to the more valuable of these two, though it is mentioned by Hesiod under the name *oreichalcon*, and by Virgil, under that of *orichalco*, yet it has been disputed from the days of Aristotle whether such a metal ever really existed. Pliny, who was contemporary with the apostles, is express, that there was none of it to be found for a long time before him. We may be pretty certain, therefore, that the *chalkolibanon*, in the Revelation, denotes the worst sort of *aurichalcum*, which was made of copper and ladmian earth, and therefore very nearly resembled our brass; for 'a mass of copper, fused with an equal quantity of calamine or lapis calaminaris will thereby be considerably augmented in quantity, and become by this operation yellow copper or brass. Bochart accordingly observes, that the French in his time called brass *archal*, by a corruption of the Latin *aurichalcum*, and they still use the phrase *Fil d' archal* for brass wire.

In two or three passages our translators have rendered *necheshet* —*steel*.

## IRON.

This is, without dispute, the most useful, and, consequently, the most valuable of all known metals. By its means the earth has been cultivated and subdued, houses have been built, cities have been constructed, ships have been formed, machinery has been generated, and nations have been enriched.

Iron is seldom found in a native state, being generally mineralized with some acid, and assuming the form of ore. It is evident from Deut. viii. 9, that Palestine abounded with mines of this metal, though we believe they are not known to exist at present in any part of the country except Lebanon. Our ignorance of their existence, however, is owing to the jealousy of the Arabs, who will suffer no traveller to examine beneath the surface of the earth, lest he should possess himself of any treasure which may be there concealed! It is evident from the earliest books of the Old Testament,



that iron was used in the time of Moses, not only for offensive and defensive weapons, but also for articles of domestic use. Indeed, its use was evidently known to the antediluvian patriarchs, who were instructed in the art of metallurgy by Tubal Cain, Gen. iv. 22.

Since iron requires the strongest fire of all metals to fuse it, there is a peculiar propriety, says Parkhurst, in the expression, 'a furnace for iron,' or an 'iron furnace,' for violent and sharp afflictions, Deut. iv. 20; 1 Kings viii. 51.

### LEAD.

NEXT to gold and mercury, lead is the heaviest of metalline substances; but in hardness it is exceeded by all of them. It is of a pale and livid grey color, not sonorous when pure, and extremely flexible. The most common state in which it is procured from the mine, is in combination with sulphur and a small quantity of silver, from which it is separated by passing through a smelting furnace, in which it is reduced to a fluid state.

There is a singular passage in Jer. vi. 28—30: 'They are all copper and iron;—they are corrupt. The bellows are burned, being consumed by the fire; the lead (used to purify the ore) is vanished; the refiner melteth in vain; but the wicked (or perhaps the bad heterogeneous matters) are not separated; (and this being the case) reprobate (or refuse) silver shall they be called, for Jehovah hath rejected them.'

From Job xix. 23, 24, we see that lead was in early use as a material for inscribing such things upon as it was wished to preserve for a long period of time. Several books of lead have been found in eastern countries.

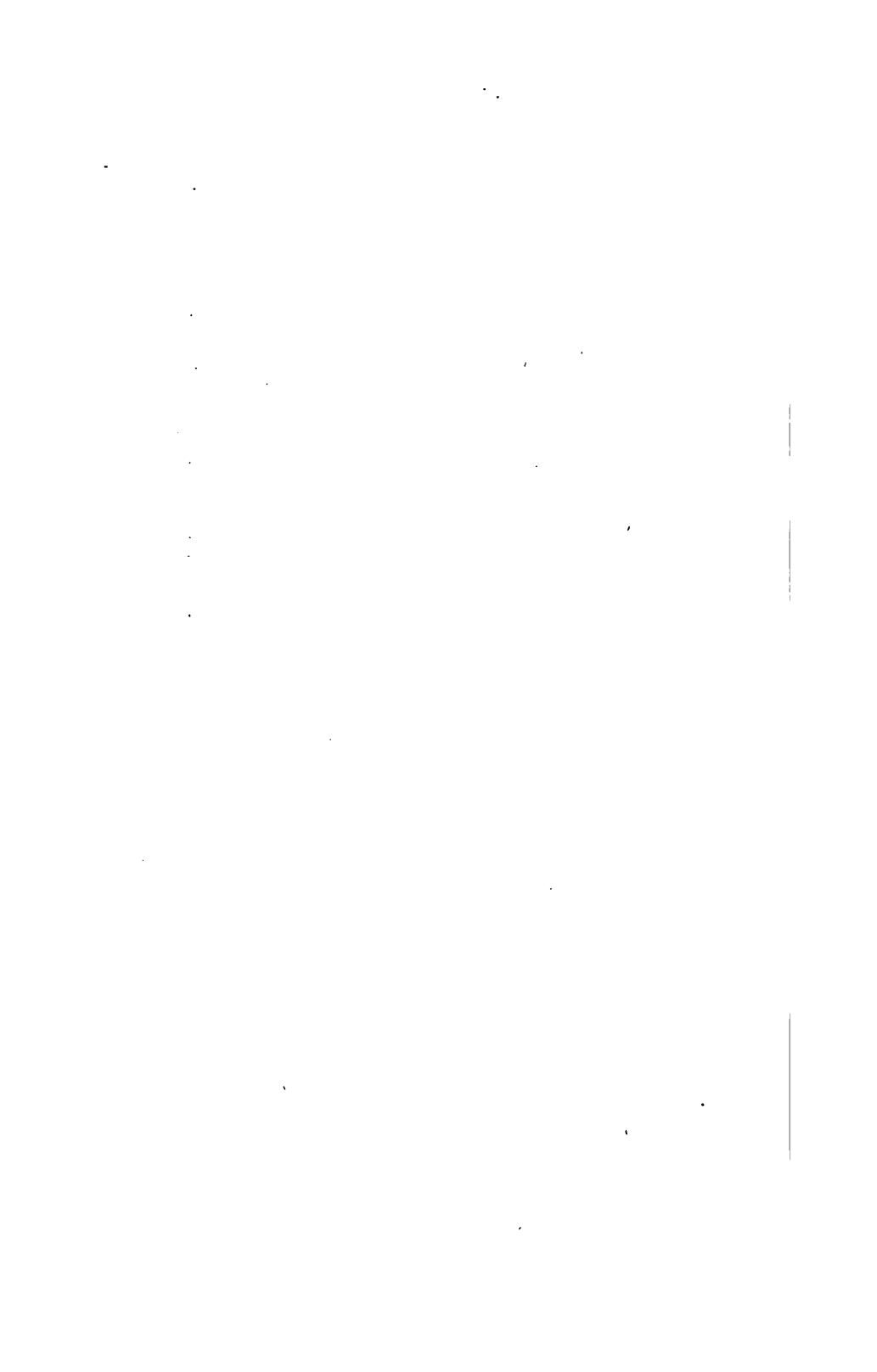
In 2 Kings ix. 30, and Jer. iv. 30, there is a substance spoken of, which was used by females for the purpose of coloring their eyes, called *pouk*, and which is generally thought to be either the powder of lead ore, or the plumbago of black lead. Shaw and Russell state, that the former of these is used for this purpose, by the women of Barbary and Aleppo.

## TIN.

THIS metal, so useful for a variety of purposes in the present day, was also known in the time of Moses, who distinctly notices it in his enumeration of the six kinds of metal, in Numb. xxxi. 22.

Silver, of all the metals, suffers most from an admixture of tin, a very small quantity serving to make that metal as brittle as glass, and what is worse, being with great difficulty separated from it again. The very vapor of tin has the same effect as the metal itself, on silver, gold, and copper, rendering them brittle. Hence we may see, says Parkhurst, the propriety of Jehovah's denunciation, by the prophet Isaiah, chap. i. 25; for having, at the 22d verse, compared the Jewish people to *silver*, he declares at verse 25, 'I will turn my hand upon thee, and purge away thy dross, and remove all thy particles of tin; where Aquila, Symmachus, Theodotion, and the Vulgate read, *thy tin*; but the LXX. read *wicked ones*. This denunciation, however, by a comparison of the preceding and following context, appears to signify that God would, by a process of judgment, purify those among the Jews who were capable of purification, as well as destroy the reprobate and incorrigible. Comp. Jer. vi. 29, 30; ix. 7; Ezek. xxii. 18, 20; Mal. iii. 3.

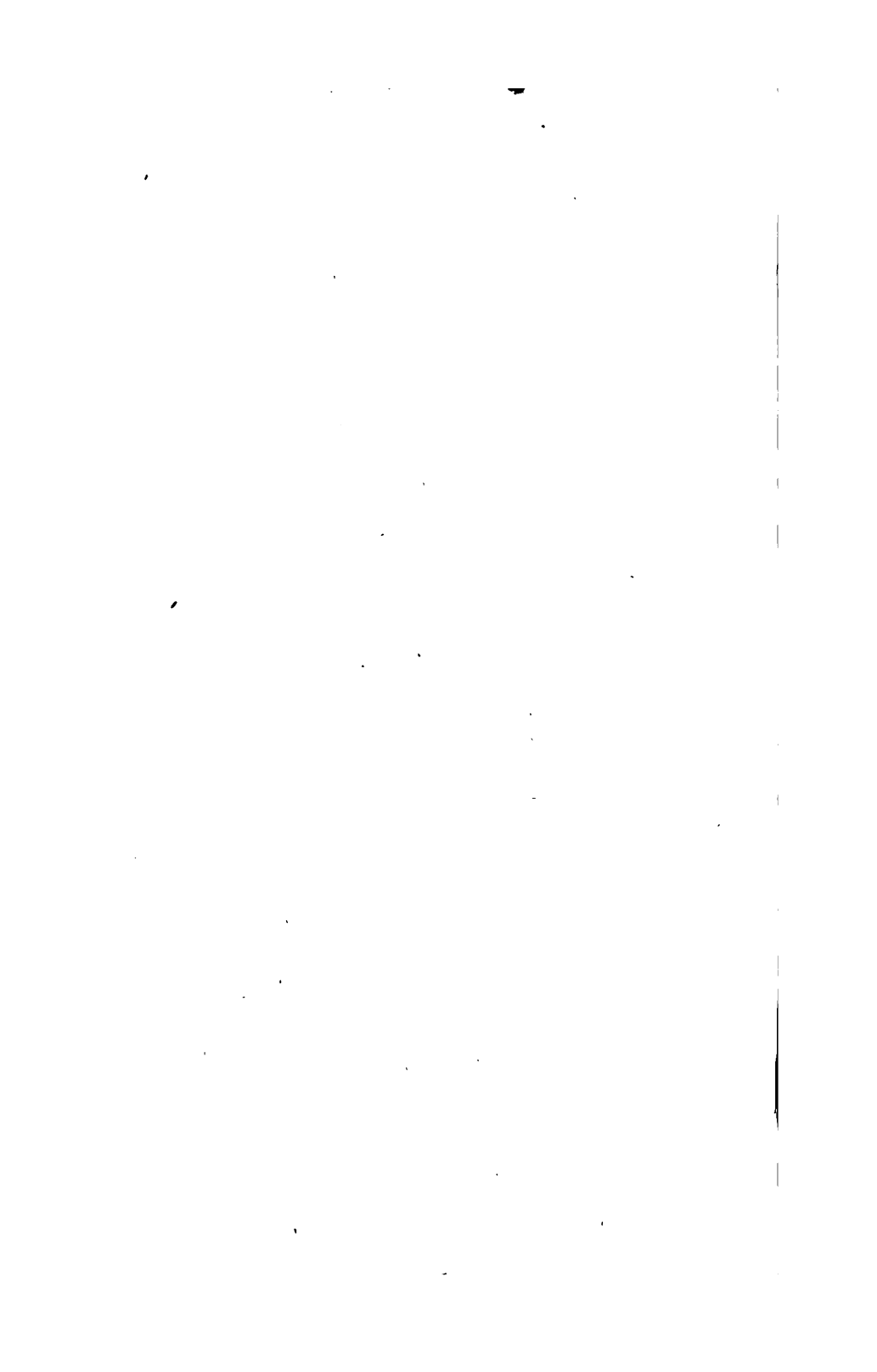
In Ezek. xxvii. 12, Tarshish is mentioned as furnishing tin, which country is, on the authority of Bochart, generally believed to be the ancient Tartessus in Spain.'



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SKETCHES  
OF  
PALESTINE.

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## SKETCHES OF PALESTINE.

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PALESTINE, the land of Israel, the kingdom of David and Solomon, the most favored and the most guilty country under heaven; during between two and three thousand years, the only section of the earth where the worship of the true God was perpetuated,—

*'Over whose acres walked those blessed feet  
Which eighteen hundred years ago were nailed,  
For our advantage, to the bitter cross?—'*

this most interesting of countries is a small canton of Syria, included within the limits of the Turkish empire, and governed by the pashas of Acre and Damascus. In the map, it presents the appearance of a narrow slip of country, extending along the eastern coast of the Mediterranean; from which, to the river Jordan, the utmost width does not exceed fifty miles. This river was the eastern boundary of the land of Canaan, or Palestine, properly so called, which derived its name from the Philistines or Palestines originally inhabiting the coast. To three of the twelve tribes, however, Reuben, Gad, and Manasseh, portions of territory were assigned on the eastern side of the river, which were afterwards extended by the subjugation of the neighboring nations. The territory of Tyre and Sidon was its ancient border on the north-west: the range of the Libanus and Antilibanus forms a natural boundary on the north and north-east; while in the south it is pressed upon by the Syrian and Arabian deserts. Within this circumscribed district, such were the physical advantages of the soil and climate, there existed, in the happiest period of the Jewish nation, an immense population. The men able to bear arms in the time of Moses, somewhat exceeded 600,000; which computation, when the Levites (20,000) and women and children are added, will give nearly two millions and a half as the amount of the population—as large as that of Sweden. The kingdom of David and Solomon, however, extended far beyond these narrow limits. In a north-eastern direction, it was bounded only by the river Euphrates, and included a considerable part of Syria.

At the time of the Christian era, Palestine was divided into five provinces; Judea, Samaria, Galilee, Perea, and Idumea. On the death of Herod, Archelaus, his eldest son, succeeded to the govern-

ment of Judea, Samaria, and Idumea, with the title of tetrarch; Galilee being assigned to Herod Antipas, and Perea, or the country beyond Jordan, to the third brother, Philip. But in less than ten years, the dominions of Archelaus became annexed, on his disgrace, to the Roman province of Syria, and Judea was thenceforth governed by Roman procurators. Jerusalem, after its final destruction by Titus, A. D. 71, remained desolate and almost uninhabited, till the emperor Hadrian colonized it, and erected temples to Jupiter and Venus on its site. The empress Helena, in the fourth century, set the example of repairing in pilgrimage to the Holy Land, to visit the scenes consecrated by the gospel narrative, and the country became enriched by the crowds of devotees who flocked there. In the beginning of the seventh century, it was overrun by the Saracens, who held it till Jerusalem was taken by the crusaders in the twelfth. The Latin kingdom of Jerusalem continued for about eighty years, during which the Holy Land streamed continually with Christian and Saracen blood. In 1187, Judea was conquered by the illustrious Saladin, on the decline of whose kingdom it passed through various revolutions, and, at length, in 1317, was finally swallowed up in the Turkish empire.

Palestine is now distributed into pashalics. That of Acre or Akko extends from Djebail nearly to Jaffa; that of Gaza comprehends Jaffa and the adjacent plains; and these two being now united, all the coast is under the jurisdiction of the Pasha of Acre. Jerusalem, Hebron, Nablous, Tiberias, and in fact, the greater part of Palestine, are included in the pashalic of Damascus, now held in conjunction with that of Aleppo, which renders the present pasha, in effect, the viceroy of Syria. Though both pashas continue to be dutiful subjects to the Grand Seigneur in appearance, and annually transmit considerable sums to Constantinople to ensure the yearly renewal of their office, they are to be considered as tributaries, rather than subjects of the Porte; and it is supposed to be the religious supremacy of the sultan, as caliph and vicar of Mahommed, more than any apprehension of his power, which prevents them from declaring themselves independent. The reverence shown for the firmans of the Porte throughout Syria, attests the strong hold which the sultan maintains, in this character, on the Turkish population. The pashas of Egypt and Bagdad are attached to the Turkish sovereignty by the same ecclesiastical tie, which alone has kept the ill-computed and feeble empire from crumbling to ruin.

The present mixed population of Palestine consists of Turks, Syrians, Bedouin Arabs, Jews, Latin, Greek, and Armenian Christians, Copts, and Druses. In western Palestine, especially on the coast, the inhabitants are stated by Burckhardt to bear generally more resemblance to the natives of Egypt than to those of northern Syria; while, towards the east of Palestine, especially in the villages about Nablous, Jerusalem, and Hebron, they are evidently of the true Syrian stock in features, though not in language. The Syrian physiognomy, assumes, however, a cast of features charac-

teristically different in the Aleppine, the Turkman, the native of Mount Libanus, the Damascene, the inhabitant of the sea-coast from Beirout to Acre, and the Bedouin. Dr. Richardson, on entering the country from Egypt, was struck at the change of physiognomy, as well as of costume, observable even at El Arish, which is in the pashalic of Egypt: the people are much fairer, as well as cleaner and better dressed. The Turks in Palestine, as elsewhere throughout the empire, occupy all the civil and military posts. Greeks form a very numerous part of the population. A considerable number of monks, of different churches and orders, still reside in the Holy Land: there is, indeed, scarcely a town of any consequence, which does not contain at least one convent. The country districts are, to a great extent, filled with nomadic Arabs. The true Arab is always an inhabitant of the desert; a name given to any solitude, whether barren or fertile, and sometimes applied to extensive pasture-lands. The moveables of a whole family seldom exceed a camel's load. Nothing can be simpler in construction than their tents. Three upright sticks, driven into the ground, with one laid across the top, form the frame-work, and a large brown cloth, made of goat's or camel's hair, woven by their women, the covering. The manner in which they secure their animals is equally simple. Two sticks are driven into the ground, between which a rope is stretched and fastened at each end; to this rope the asses and mules are all attached by the feet; the horses also, but apart from the asses; the camels are seldom secured at all. The dress of this people in the Holy Land consists of a blue shirt or tunic, descending below the knees, the legs and feet being exposed: or the latter are sometimes covered with the ancient cothurnus or buskin. Over this is worn a cloak of very coarse and heavy camel's hair cloth, (the sackcloth of the Scriptures,) consisting of one square piece, with holes for the arms, but having a seam down the back. This appears to have been the dress of John the Baptist, as well as of the ancient prophets. The cloak (or hyke) is almost universally decorated with black and white stripes, passing vertically down the back. The head-dress is a small turban, resembling a coarse handkerchief bound across the temples, one corner of which generally hangs down, and is often fringed with strings in knots, by way of ornament. The usual weapons of the Arab are a lance, a poniard, an iron mace, a battle-axe, and sometimes, a matchlock gun. The usual veil worn by all the females in Syria, except the Jewesses, is a large white handkerchief or shawl, which covers the head and face, and falls over the shoulders. It is astonishing, remarks Dr. Richardson, what a light and cheerful air this costume imparts compared with the dull funeral drapery of the Egyptian dames. In the dress of the pastoral Arabs, we probably have preserved the most faithful representation of the ancient Jewish costume. The usual size of the hyke is six yards long, and from five to six broad; and as the Arabs sleep in their raiment, as the Israelites did of old, it serves as a bed or blanket at night. The toga of the Romans, and



the plaid of the Highlanders of Scotland, are garments of the same kind. The habits of the Bedouin natives have probably undergone as little change as their costume. 'Abraham,' remarks Dr. Richardson, 'was a Bedouin; and I never saw a fine venerable-looking sheikh busied among his flocks and herds, that it did not remind me of the holy patriarch himself.'

**NATURAL HISTORY, CLIMATE, &c.** The geographical aspect of Palestine is not less diversified than the appearance of its motley population. Its prevailing character but imperfectly corresponds to its ancient fertility; but this is chiefly owing to the miserable state of vassalage in which its inhabitants are held, together with the devastating effects of perpetual wars, and probably some physical changes. Those writers, ancient and modern, who have represented it as barren, must be understood, however, as referring only to the mountainous districts round Jerusalem. Abulfeda describes Palestine as the most fertile part of Syria, and the neighborhood of Jerusalem as one of the most fruitful parts of Palestine. An Oriental's ideas of fertility differ sufficiently from ours, to explain in part this assertion; for to him, plantations of figs, vines, and olives, with which the limestone rocks of Judea were once covered, would suggest the same associations of plenty and opulence that are called up in the mind of an Englishman by rich tracts of corn-land. The land of Canaan is characterized as flowing with milk and honey, and it still answers to this description; for it contains extensive pasture-lands of the richest quality, and the rocky country is covered with aromatic plants, yielding to the wild bees, who hive in the hollow of the rocks, such abundance of honey, as to supply the poorer classes with an article of food. Wild honey and locusts were the usual diet of the forerunner of our Lord, during his seclusion in the desert country of Judea; from which we may conclude that it was the ordinary fare of the common people. The latter are expressly mentioned by Moses as lawful and wholesome food; and Pliny states that they made a considerable part of the food of the Parthians and Ethiopians. They are still eaten in many parts of the East: when sprinkled with salt and fried, they are said to taste much like the river cray-fish. Honey from the rocks is repeatedly referred to in the Scriptures, as a delicious food, and an emblem of plenty. Dates are another important article of consumption, and the neighborhood of Judea was famous for its numerous palm-trees, which are found springing up from chance-sown kernels in the midst of the most arid districts. When to these wild productions we add the oil extracted from the olive, so essential an article to an Oriental, we shall be at no loss to account for the ancient fertility of the most barren districts of Judea, or for the adequacy of the soil to the support of so numerous a population, notwithstanding the comparatively small proportion of arable land. There is no reason to doubt, however, that corn and rice would be imported by the Tyrian merchants, which the Israelites would have no difficul-

ty in exchanging for the produce of the olive-ground and the vineyard, or for their flocks and herds. Delicious wine is still produced in some districts, and the valleys bear plentiful crops of tobacco, wheat, barley, and millet. Tacitus compares both the climate and the soil, indeed, to those of Italy, and he particularly specifies the palm-tree and balsam-tree as productions which gave the country an advantage over his own. Among other indigenous productions, may be enumerated the cedar and other varieties of the pine, the cypress, the oak, the sycamore, the mulberry-tree, the fig-tree, the willow, the turpentine-tree, the acacia, the aspen, the arbutus, the myrtle, the almond-tree, the tamarisk, the oleander, the peach-tree, the chaste-tree, the carob or locust-tree, the oskar, the doom, the mustard-plant, the aloe, the citron, the apple, the pomegranate, and many flowering shrubs. The country about Jericho was celebrated for its balsam, as well as for its palm-trees; and two plantations of it existed during the last war between the Jews and the Romans, for which both parties fought desperately. But Gilead appears to have been the country in which it chiefly abounded: hence the name, *balm of Gilead*. Since the country has fallen under the Turkish dominion, it has ceased to be cultivated in Palestine, but is still found in Arabia. Other indigenous productions have either disappeared, or are now confined to circumscribed districts. Iron is found in the mountain range of Libanus, and silk is produced in abundance in the plains of Samaria.

Generally speaking, the climate is mild and salubrious. During the months of May, June, July, and August, the sky is for the most part cloudless; but during the night the earth is moistened with a copious dew. As in Persia, sultry days are not unfrequently succeeded by intensely cold nights. To these sudden vicissitudes references are made in the Old Testament. During the other parts of the year, there is no deficiency of rain; and to this circumstance the fertility of Palestine is chiefly attributable, in the absence of springs. The streams with which it is watered, with the exception of the river Jordan, are all brooks or torrents fed by the copious periodical rains. In the dry season, the only resource of the natives is, the wells or the water collected in the rainy season. Hence the high importance attaching to the possession of a well in this country, and the value set upon a cup of cold water. Throughout Syria, the traveller perceives, at stated distances on the road, small reservoirs or large vases filled with water, having beside them a pot for the use of passengers when thirsty. These monuments are owing to pious foundations in favor of travellers; but the greater part are falling into ruin. It is remarkable that in Arabia, most of the inhabited places are situated in valleys or hollows: in Palestine, on the contrary, the towns and villages are almost uniformly built upon hills or heights. The scarcity of the rains in Arabia, and their abundance in Palestine, has been with some plausibility assigned as the reason for this difference. The floods in the rainy season sometimes pour down from the hills

with such violence as to sweep every thing before them. The Jordan, from this cause, formerly rose periodically above its banks. Whether it has worn for itself a deeper channel, or discharges its superfluous waters by some other means, is not ascertained, but the rise is now insufficient to produce inundation.

We have but imperfect notices of the present zoology and ornithology of Palestine. The Scriptures contain familiar references to the lion, the wolf, the fox, the leopard, the hart, the jackal, and the wild boar, which lead one to suppose that they were native animals. The wilder animals, however, have mostly disappeared. Hasselquist, a pupil of Linnæus, who visited the Holy Land in 1750, mentions, as the only animals he saw, the porcupine, the jackal, the fox, the rock-goat, and the fallow-deer. Captain Mangles describes an animal of the goat species as large as the ass, with long, knotty, upright horns; some bearded, and their color resembled that of the gazelle. The horse does not appear to have been generally adopted, till after the return of the Jews from Babylon. Solomon was the first monarch who collected a numerous stud of the finest horses that Egypt or Arabia could furnish. In the earlier times, the wild ass was deemed worthy of being employed for purposes of royal state as well as convenience. The breed of cattle reared in Bashan and Gilead were remarkable for their size, strength, and fatness.

In ornithology, the eagle, the vulture, the cormorant, the bittern, the stork, the owl, the pigeon, the swallow, and the dove, were familiar to the Jews. Hasselquist enumerates the following from his own observation: the vulture, two species, one seen near Jerusalem, the other near Cana in Galilee; the falcon, near Nazareth; the jackdaw, in numbers in the oak-woods near Galilee; the green wood-pecker, at the same place; the bee-eater, in the groves and plains between Aora and Nazareth; the nightingale, among the willows at Jordan and olive trees of Judea; the field-lark, 'every where'; the goldfinch, in the gardens near Nazareth; the red partridge, and two other species, the quail, and the quail of the Israelites; the turtle-dove and the ring-dove. Game is abundant; partridges, in particular, being found in large coveys, so fat and heavy, that they may easily be knocked down with a stick. Wild geese, ducks, widgeon, snipe, and water-fowl of every description, abound in some situations.

The Holy Land is at present infested with a frightful number of lizards, different kinds of serpents, vipers, scorpions, and various insects. Flies of every species are also extremely annoying. Ants are so numerous in some parts, that one traveller describes the road to Jaffa, from El Awisch, as, for three days' journey, a continued ant-hill.

The general outlines of the surface of the country may be thus laid down. The Jordan, or river of Dan, which rises under the lofty peaks of the Antilibanus, and flows in a direction almost constantly southward, with the lake of Tiberias, through which it passes

ses, and that of Asphaltites (the Dead Sea), which it forms by its discharge, divides Palestine completely from north to south. In the western division, between the Mediterranean and the lake of Tiberias, lie the two Galilees. The plain of Esdraelon, which occupies the greater part of this tract, being two day's journey, or nearly fifty miles in length and twenty in breadth, is described by Dr. Clarke as one vast meadow, covered with the richest pasture. This plain is enclosed on all sides by the mountains, and not a house or a tree is to be discovered in it. It is completely commanded by Acre, so that the possessor of that port is the lord of one of the richest territories in the Holy Land. To the south of Galilee lies the district of ancient Samaria, now chiefly included in the district of Nablous: it is mountainous, but well cultivated, and forms at present the most flourishing part of the Holy Land. Judea Proper comprises the territory extending from the Dead Sea to the Mediterranean, and is composed of a range of limestone hills, rising by stages from the level of the coast, and becoming more rugged and rocky as you approach Jerusalem from Jaffa. Between Jaffa and Gaza, westward of the mountains of Judea, lies the tract distinguished as the plain of the Mediterranean Sea, the ancient territory of the Philistines, including the five cities of Gaza, Askelon, Ashdod, Gath and Ekron. This district still bears the name of Phalastin, and forms a separate pashalic: it may be distinguished as Palestine Proper.

### JERUSALEM.

The approach to Jerusalem from Jaffa is not the direction in which to see the city to the best effect. Dr. Clarke entered it by the Damascus gate, and he describes the view of Jerusalem, when first descried from the summit of a hill, at about an hour's distance, as most impressive. He confesses, at the same time, that there is no other point of view in which it is seen to so much advantage. In the celebrated prospect from the Mount of Olives, the city lies too low, is too near the eye, and has too much the character of a bird's-eye view, with the formality of a topographical plan. 'We had not been prepared,' says this lively traveller, 'for the grandeur of the spectacle which the city alone exhibited. Instead of a wretched and ruined town, by some described as the desolated remnant of Jerusalem, we beheld, as it were, a flourishing and stately metropolis, presenting a magnificent assemblage of domes, towers, palaces, churches, and monasteries; all of which glittering in the sun's rays, shone with inconceivable splendor. As we drew nearer, our whole attention was engrossed by its noble and interesting appearance. The lofty hills surrounding it, give the city itself an appearance of elevation less than it really has.' Dr. Clarke was fortunate in catching this first view of Jerusalem under the illusion of a brilliant evening sunshine; but his description is decidedly overcharged. M. Chateaubriand, Mr. Buckingham, Mr. Brown, Mr. Jolliffe, Sir

F. Henniker, and almost every other modern traveller, confirm the representation of Dr. Richardson. Mr. Buckingham says: 'The appearance of this celebrated city, independent of the feelings and recollections which the approach to it cannot fail to awaken, was greatly inferior to my expectations, and had certainly nothing of grandeur or beauty, of stateliness or magnificence, about it. It appeared like a walled town, of the third or fourth class, having neither towers, nor domes, nor minarets within it in sufficient numbers to give even a character to its impressions on the beholder; but showing chiefly large flat-roofed buildings of the most unornamented kind, seated amid rugged hills, on a stony and forbidding soil, with scarcely a picturesque object in the whole compass of the surrounding view.'

Chateaubriand's description is very striking and graphical. After citing the language of the prophet Jeremiah, in his lamentations on the desolation of the ancient city, as accurately portraying its present state, he thus proceeds:—

'When seen from the Mount of Olives, on the other side of the valley of Jehoshaphat, Jerusalem presents an inclined plane, descending from west to east. An embattled wall, fortified with towers and a Gothic castle, encompasses the city all round; excluding, however, part of Mount Sion, which it formerly enclosed. In the western quarter, and in the centre of the city, the houses stand very close; but, in the eastern part, along the brook Kedron, you perceive vacant spaces; among the rest, that which surrounds the mosque erected on the ruins of the Temple, and the nearly-deserted spot where once stood the castle of Antonia and the second palace of Herod.

'The houses of Jerusalem are heavy square masses, very low, without chimneys or windows; they have flat terraces or domes on the top, and look like prisons or sepulchres. The whole would appear to the eye one uninterrupted level, did not the steeples of the churches, the minarets of the mosques, the summits of a few cypresses, and the clumps of nopal, break the uniformity of the plan. On beholding these stone buildings, encompassed by a stony country, you are ready to inquire if they are not the confused monuments of a cemetery in the midst of a desert.

'Enter the city, but nothing will you there find to make amends for the dulness of its exterior. You lose yourself among narrow, unpaved streets; here going up hill, there going down, from the inequality of the ground; and you walk among clouds of dust, or loose stones. Canvas stretched from house to house increases the gloom of this labyrinth. Bazars, roofed over, and fraught with infection, completely exclude the light from the desolate city. A few paltry shops expose nothing but wretchedness to view, and even these are frequently shut, from apprehension of the passage of a *cadi*. Not a creature is to be seen in the streets, not a creature at the gates, except now and then a peasant gliding through the gloom concealing under his garments the fruits of his labor,

lest he should be robbed of his hard earnings by the rapacious soldier. Aside, in a corner, the Arab butcher is slaughtering some animal, suspended by the legs from a wall in ruins: from his haggard and ferocious look, and his bloody hands, you would suppose that he had been cutting the throat of a fellow-creature, rather than killing a lamb. The only noise heard from time to time in the city, is the galloping of the steed of the desert: it is the janissary who brings the head of the Bedouin, or who returns from plundering the unhappy Fellah.

'Amid this extraordinary desolation, you must pause a moment to contemplate two circumstances still more extraordinary. Among the ruins of Jerusalem, two classes of independent people find in their religion sufficient fortitude to enable them to surmount such complicated horrors and wretchedness. Here reside communities of Christian monks, whom nothing can compel to forsake the tomb of Christ; neither plunder nor personal ill-treatment, nor menaces of death itself. Night and day they chaunt their hymns around the Holy Sepulchre. Driven by the cudgel and the sabre, women, children, flocks, and herds, seek refuge in the cloisters of these recluses. What prevents the armed oppressor from pursuing his prey, and overthrowing such feeble ramparts? The charity of the monks: they deprive themselves of the last resources of life to ransom their suppliants. . . . Cast your eyes between the Temple and Mount Sion; behold another petty tribe, cut off from the rest of the inhabitants of this city. The particular objects of every species of degradation, these people bow their heads without murmuring; they endure every kind of insult without demanding justice; they sink beneath repeated blows without sighing: if their head be required, they present it to the scimitar. On the death of any member of this proscribed community, his companion goes at night, and inters him by stealth in the valley of Jehoshaphat, in the shadow of Solomon's Temple. Enter the abodes of these people, you will find them, amid the most abject wretchedness, instructing their children to read a mysterious book, which they in their turn will teach their offspring to read. What they did five thousand years ago, these people still continue to do. Seventeen times have they witnessed the destruction of Jerusalem, yet nothing can discourage them, nothing can prevent them from turning their faces towards Sion. To see the Jews scattered over the whole world, according to the Word of God, must doubtless excite surprise. But to be struck with supernatural astonishment, you must view them at Jerusalem; you must behold these rightful masters of Judea living as slaves and strangers in their own country; you must behold them expecting, under all oppressions, a king who is to deliver them. Crushed by the Cross that condemns them, skulking near the Temple, of which not one stone is left upon another, they continue in their deplorable situation. The Persians, the Greeks, the Romans, are swept from the earth; and a petty tribe, whose origin preceded that

of those great nations, still exists unmixed among the ruins of its native land.

But the Jerusalem of sacred history is, in fact, no more. Not a vestige remains of the capital of David and Solomon; not a monument of Jewish times is standing. The very course of the walls is changed, and the boundaries of the ancient city are become doubtful. The monks pretend to show the sites of the sacred places; but neither Calvary, nor the Holy Sepulchre, much less the Dolorous Way, the house of Caiaphas, &c., have the slightest pretensions to even a probable identity with the real places to which the tradition refers. Dr. Clarke has the merit of being the first modern traveller who ventured to speak of the preposterous legends and clumsy forgeries of the priests with the contempt which they merit. 'To men interested in tracing, within the walls, antiquities referred to by the documents of sacred history, no spectacle,' remarks the learned traveller, 'can be more mortifying than the city in its present state. The mistaken piety of the early Christians, in attempting to preserve, has either confused or annihilated the memorials it was anxious to render conspicuous. Viewing the havoc thus made, it may now be regretted that the Holy Land was ever rescued from the dominion of Saracens, who were far less barbarous than their conquerors. The absurdity, for example, of hewing the rocks of Judea into shrines and chapels, and of disguising the face of nature with painted domes and gilded marble coverings, by way of commemorating the scenes of our Saviour's life and death, is so evident, and so lamentable, that even Sandys, with all his credulity, could not avoid a happy application of the reproof conveyed by the Roman satirist against a similar violation of the Egerian fountain.'

The Jerusalem that now is, is still a respectable, good-looking town, of an irregular shape, approaching to a square; it is surrounded by a high, embattled wall, built for the most part of the common stone of the country, which is a compact limestone. It has now, including the golden gate, seven gates. One looks to the west, and is called the gate of Yaffa, or Bethlehem, because the road to those places passes through it. Two look to the north, and are called the gate of Damascus, and the gate of Herod or Ephraim gate. A fourth looking to the east, is called St. Stephen's gate, because near it the proto-martyr was stoned to death; it is close to the temple, or mosque of Omar, and leads to the gardens of Gethsemane and the Mount of Olives. The fifth leads into the Temple, but is now built up, owing, it is said, to a tradition that the Christians will take the city by this gate: it is called the golden gate. Another gate leads from without the city into the mosque of El Aksa, formerly the church of the presentation, and is called the gate of the Virgin Mary. On account of a turn in the wall, this gate, though in the east wall of the city, looks to the south towards Mount Zion; it is not, however, strictly speaking, a gate of the city. What, therefore, we reckon the sixth gate, is the dung gate, or sterquiline gate.

This is small, not admitting either horses or carriages, (of the latter, however, there are none in Jerusalem); and from the wall resuming its former direction, it looks towards the east. The last is called Zion gate, or the gate of the prophet David; it looks to the south, and is in that part of the wall which passes over Mount Zion.

The longest wall is that on the north side of the city, which runs from the valley of Gihon on the west, to the valley of Jehoshaphat on the east. The circumference of the area now enclosed within the walls, does not exceed, according to the measurement of Maundrell and Pococke, two of our most accurate travellers, two miles and a half. The city may be roughly stated to be about a mile in length, and half a mile in breadth. Pococke accurately describes it as standing at the south end of a large plain that extends northwards towards Samaria, though it in fact immediately occupies two small hills, having valleys or ravines on the other three sides, which, to the east and south, are very deep. That on the east is the valley of Jehoshaphat; that on the south is called the valley of Siloam, and (erroneously) of Gehinnom; that on the west, which is not so deep, the valley of Rephaim. The hills on the other side of these valleys are, for the most part, considerably higher than either Mount Zion or Acra. On the east, Jerusalem is commanded by the Mount of Olives, called Djebel Tor by the Arabs. On the south, by what the Christians absurdly denominate the Hill of Offence and the Hill of Evil Counsel. On the west, by a low rocky flat, which rises towards the north to a commanding elevation; this has been called Mount Gihon. On the north-west, Scopa, where Titus encamped, is also higher ground than that on which Jerusalem stands. So that the Scripture representation of Jerusalem, as guarded by mountains, literally answers to its topographical situation; 'As the mountains are round about Jerusalem, so the Lord is round about his people, from henceforth, even forever.'

The site of the ancient city is so unequivocally marked by its natural boundaries on the three sides where there are ravines, that there can be no difficulty, except with regard to its extent in a northern direction; and this may be ascertained with sufficient accuracy from the minute description given by Josephus. His account of its topography is, after all, the best guide to the modern traveller and antiquary. 'The city of Jerusalem,' he tells us, 'was fortified with three walls, on such parts as were not encompassed with impassable valleys; for in such places it hath but one wall. The city was built upon two hills, which are opposite to one another, and have a valley dividing them asunder, at which valley the corresponding rows of houses on both hills terminate. Of these hills, that which contains the upper city is much higher, and in length more direct; accordingly, it was called the Citadel by king David; he was the father of that Solomon who built this Temple at the first; but it is by us called the Upper Market-place. But the other hill, which was called Acra, and sustains the lower city, is in



the shape of the moon when she is horned. Over against this there was a third hill, naturally lower than Acra, and parted formerly from the other by a broad valley. However, in those times when the Asmoneans reigned, they filled up that valley with earth, and had a mind to join the city to the Temple. They then took off part of the height of Acra, and reduced it to be of less elevation than it was before, that the Temple might be superior to it. Now the Valley of the Cheese-mongers, as it was called, and was that which we told you before distinguished the hill of the upper city from that of the lower, extended as far as Siloam; for that is the name of a fountain which hath sweet water in it, and this in great plenty also. But on the outside these hills are surrounded by deep valleys, and, by reason of the precipices on both sides, are everywhere impassable.

**THE HOLY SEPULCHRE.** The church of the Holy Sepulchre is built partly on the low ground and partly on the ascent. It is not entered from the Via Dolorosa: the traveller has to ascend the next street, and then, turning to the left, to proceed along a winding descent, till he arrives at a large open court in front of the church, where he will find everything his heart can wish in the form of crucifixes, carved shells, beads and bracelets, saints, and sherbet; all exposed to sale, and the venders seated on the ground beside their wares. The court is bounded by the wings of the convent: that on the right contains Mount Calvary, and other supposititious sacred places; that on the left, the Greek chapel, and anciently the belfry. The door of the church faces the court; it is on the side of the building. It is open only on certain days in the week, and certain hours in each day. To get it opened at any other time, it is necessary to have an order of the two convents, the Latin and the Greek, with the sanction of the governor of the city. When open, the door is always guarded by Turks, who exact a tribute from all who enter. Once admitted, the visitors may remain all night, if they please. The crowd pressing for admittance on certain days is immense; and the Turks, who keep the door, treat them in the roughest manner, notwithstanding that they pay for admission, squeezing and beating them about like so many cattle. 'It must be allowed,' says Dr. Richardson, 'that they are often extremely riotous, and conduct themselves in a manner very unbecoming their character of pilgrims.'

Having passed within these sacred walls, the attention is first directed to a large flat stone in the floor, a little within the door; it is surrounded by a rail, and several lamps hang suspended over it. The pilgrims approach it on their knees, touch, and kiss it, and, prostrating themselves before it, offer up their prayers in holy adoration. This is the stone on which the body of our Lord was washed and anointed, and prepared for the tomb. Turning to the left, and proceeding a little forward, we came into a round space immediately under the dome, surrounded with sixteen large columns that support the gallery above. In the centre of this space

stands the holy sepulchre; it is enclosed in an oblong house, rounded at one end with small arcades or chapels for prayer in the outside of it for the devotion of the Copts, the Abyssinian, the Syrian Maronite, and other Christians, who are not, like the Roman Catholics, the Greeks, and the Armenians, provided with large chapels in the body of the church. At the other end it is squared off and furnished with a platform in front, which is ascended by a flight of steps, having a small parapet wall of marble on each hand, and being floored with the same material. In the middle of this platform stand a block of polished marble, about a foot and a half square; on this stone sat the angel who announced the blessed tidings, of the resurrection to Mary Magdalen, and Joanna, and Mary the mother of James: 'He is not here, he is risen, as he said: come, see the place where the Lord lay.' Advancing a step, and taking off our shoes and turbans, at the desire of the keeper, he drew aside the curtain, and stepping down and bending almost to the ground, we entered, by a low narrow door into this mansion of victory, where Christ triumphed over the grave, and disarmed death of all his terrors.

The tomb exhibited is a sarcophagus of white marble, slightly tinged with blue; it is six feet one inch and three quarters long, three feet three quarters of an inch broad, and two feet one inch and a quarter deep, measured on the outside. It is but indifferently polished, and seems as if it had at one time been exposed to the pelting of the storm and the changes of the season, by which it has been considerably disintegrated: it is without any ornament, and is made in the fashion of a Greek sarcophagus, and not like the ancient tombs of the Jews, which we see cut in the rock for the reception of the dead; nor like those stone troughs, or sarcophagi, which I have already mentioned were called to me the beds of the Lord Jesus, of Mary, of John, and of Zacharias. There are seven silver lamps constantly burning over it, the gifts of different potentates, to illuminate this scene of hope and joy. The sarcophagus occupies about one half of the sepulchral chamber, and extends from one end of it to the other. A space about three feet width in front of it, is all that remains for the reception of visitors, so that not above three or four can be conveniently admitted at a time.

That the marble sarcophagus shown as the sepulchre, has no pretensions to the distinction claimed for it, stands in no need of proof. The Evangelists inform us that the sepulchre in which the body of Jesus was laid, was hewn out of the rock, which is not marble, but compact limestone; a lateral excavation, in all probability, of the same kind as are still seen in the rocks round Jerusalem. The stone in the anti-room of the tomb, shown as that which was rolled to the doorway of the sepulchre, and kissed and venerated by the holy fathers accordingly, was admitted by the guide, when strictly questioned, to be a substitute for the *real stone*, which was stolen by the Armenians, and is exhibited by them in a chapel on Mount Zion: but the block of marble, it was said, served their purpose

equally well. Dr. Richardson conjectures that, were the historians of the sacred premises to exercise the same degree of candor as their guide, it would turn out that the stone trough called the *Sereer Sidn Aisa* by the Turks, was the sarcophagus originally exhibited as the tomb of Christ.

The walls of the sepulchral chamber itself are of greenish marble, the species of breccia vulgarly called *verd-antique*. It is pretended that this exterior is only a casing to protect the internal surface of the rock, which externally has been cut into the shape, to use Dr. Clark's expression, of a huge pepper-box; all the surrounding rock being levelled to the floor of the building, except this 'grotto above ground,' as Maundrell terms it. Thus, all that the pilgrim is permitted to see, is a marble casing of a supposed rock, which rock has, in fact, all the appearance of a building, as no doubt it really is.

From the sepulchre, the visiter is led to the place where Christ appeared to Mary Magdalen; to the 'chapel of apparition,' where he appeared to the Virgin; and then to the Greek chapel facing the sepulchre, in the centre of which the Greeks have set up a globe, to mark out the spot as the centre of the earth; thus transferring, as Dr. Richardson remarks, the absurd notions of their ancient heathen priests respecting the navel of the earth, from Delphi to Jerusalem. A dark, narrow stair-case of about twenty steps conducts the pilgrim to *Mount Calvary*. Here are shown the place where Christ was nailed to the cross, where the cross was erected, the hole in which the end was fixed, and the rent in the rock, all covered with marble, perforated in the proper places. 'To complete,' says Dr. Clarke, 'the naïveté of the tale, it is added, that the head of Adam was found within the fissure.' '*Mount Calvary*' is, by that learned traveller, stated to be in fact a modern piece of masonry; a sort of altar, within the contracted dimensions of which are exhibited the marks or holes of the *three crosses*, without the smallest regard to the space necessary for their erection.

Descending from Calvary, the pilgrim enters the chapel of *St. Helena*, in the low rocky vault beneath which the cross is said to have been found. In this murky den, the invention (or finding) of the cross is celebrated, in an appropriate mass by the Latins on the 3d of May. It is large enough to contain about thirty or forty persons, wedged in close array, and on that occasion it is generally crowded. The year that Dr. Richardson was at Jerusalem, it happened that the day on which the festival was to be celebrated by the Latins, was the same as that on which it was to be celebrated by the Greeks; and he witnessed the tag of war between the ecclesiastical combatants, who, with brick-bats and clubs, teeth and nails, fought for their chapel like kites or crows for their nest. The Romans were routed. 'The devil aids the Greeks,' exclaimed the superior of the Latin Convent, panting from the effects of a blow; 'they are schismatics; and you Englishmen, who live in our convent, see us beaten and do not assist us.' 'How can you expect it,' it was rejoined, 'when, if we fell in your cause, you would not ab-

low us Christian burial?' The Greeks spent the night in firing pistols and rejoicing; and were fined by the *cadi* next morning for disturbing his repose.

The fathers of the Latin convent annually *perform* the crucifixion. Maundrell, who was present on one occasion, has given a particular description of the dramatic ceremonies.

It is impossible to calculate the extent of the evil resulting from this pernicious mummary, in its two-fold character of a delusion on the minds of the pilgrims, and a stumbling-block in the way of the conversion of the Mahomedans. In the year 1820, upwards of 3000 pilgrims visited the Holy City. They consisted of Greeks from Russia, Turkey, and Asia Minor,—Armenians, chiefly from Anatolia,—Copts, Syrians, and about fifty Roman Catholics from Damascus. Very few of them were able to read, and scarcely one had seen a copy of the Scriptures. The true character of their religion may be judged of from the fact that the chief objects of the Greek pilgrims are, to obtain candles touched with the sacred fire, under the idea that, if burned at a person's funeral, they will assuredly save his soul from punishment; and to bathe themselves, and dip their linen in the Jordan, bringing these clothes back to be carefully preserved for their winding-sheet. 'If this be not heathenism,' it has been remarked, 'what is Christianity?' Every friend of his species must devoutly wish that all the murky dens and grottoes of superstition, which profane and infest the once sacred city, were laid open to the day, and the whole system of scandalous imposture finally abolished.

The only genuine objects of interest in the Church of the Sepulchre were the tombs of Godfrey of Bouillon and his brother Baldwin: they are described by Chateaubriand as two stone coffins, supported by four little pillars, with Latin epitaphs in Gothic character. They had nothing to recommend them but their antiquity. Mr. Buckingham states, that they have been spitefully destroyed by the Greeks, so that not a vestige of them remains.

The reader must have had more than enough of the supposititious sacred places, and it cannot be necessary to particularize the absurd legends which affect to point out the precise spot on which every circumstance in the evangelical narrative occurred, down to the window out of which Dives looked upon Lazarus, and the place where Peter's cock crew. Whatever objects of antiquarian interest Jerusalem may yet contain, remain to be brought to light by excavation, which, under present circumstances, is impracticable. By far the most interesting objects within the city are

### THE JEWS.

The Jews reside chiefly on the edge of Mount Zion, and in the lower part of the city, near the shambles, which, in summer, are dreadfully offensive. Here, again, we shall avail ourselves of the account given of the present condition of the Jews of Jerusalem

by Dr. Richardson. He reports their number to be 10,000; an amazing increase, if correct, within the past thirty years.

Many of the Jews are rich and in comfortable circumstances; and possess a good deal of property in Jerusalem; but they are careful to conceal their wealth, and even their comfort, from the jealous eye of their rulers, lest, by awakening their cupidity, some vile, indefensible plot should be devised to their prejudice. In going to visit a respectable Jew in the holy city, it is a common thing to pass to his house over a ruined foreground and up an awkward outside stair, constructed of rough unpolished stones, that totter under the foot; but it improves as you ascend, and at the top has a respectable appearance, as it ends in an agreeable platform in front of the house. On entering the house itself, it is found to be clean and well furnished; the sofas are covered with Persian carpets, and the people seem happy to receive you. The visitor is entertained with coffee and tobacco, as is the custom in the houses of the Turks and Christians. The ladies presented themselves with an ease and address that surprised me, and called to my memory the pleasing society of Europe. This difference of manner arises from many of the Jewish families in Jerusalem having resided in Spain or Portugal, when the females had rid themselves of the cruel domestic fetters of the East, and, on returning to their beloved land, had very properly maintained their justly acquired freedom and rank in society. They almost all speak a broken Italian, so that conversation goes on without the clumsy aid of an interpreter.

'It was the feast of the Passover, and they were all eating unleavened bread; some of which was presented to me as a curiosity, and I partook of it merely that I might have the gratification of eating unleavened bread, with the sons and daughters of Jacob, in Jerusalem; it is very insipid fare, and no one would eat it from choice. For the same reason I went to the synagogue, of which there are two in Jerusalem, although I visited only one. The form of worship is the same as in this country, and I believe in every country which the Jews inhabit. The females have a separate part of the synagogue assigned to them, as in the synagogues in Europe, and in the Christian churches all over the Levant. They are not, however, expected to be frequent or regular in their attendance on public worship. The ladies generally make a point of going on the Sunday, that is the Friday night or Saturday morning, after they are married; and being thus introduced in their new capacity, once a year is considered as sufficient compliance, on their part, with the ancient injunction to assemble themselves together in the house of prayer. Like the votaries of some Christian establishments, the Jewesses trust more to the prayers of their priests than to their own.

'The synagogues in Jerusalem are both poor and small, not owing to the poverty of their possessors, but to the prudential motives above mentioned.'

'The Jewesses in Jerusalem speak in a decided and firm tone, unlike the hesitating and timid voice of the Arab and Turkish females; and claim the European privilege of differing from their husbands, and maintaining their own opinions. They are fair and good looking; red and auburn hair are by no means uncommon in either of the sexes. I never saw any of them with veils; and was informed that it is the general practice of the Jewesses in Jerusalem to go with their faces uncovered: they are the only females there who do so.

'In passing up the synagogue, I was particularly struck with the mean and wretched appearance of the houses on both sides of the streets, as well as with the poverty of their inhabitants. Some of the old men and old women had more withered and hungry aspects than any of our race I ever saw, with the exception of the cavernd dames at Gornou, in Egyptian Thebes, who might have sat in a stony field as a picture of famine the year after the flood. The sight of a poor Jew in Jerusalem has in it something peculiarly affecting. The heart of this wonderful people, in whatever clime they roam, still turns to it as the city of their promised rest. They take pleasure in her ruins, and would lick the very dust for her sake. Jerusalem is the centre around which the exiled sons of Judah build, in airy dreams, the mansions of their future greatness. In whatever part of the world he may live, the heart's desire of a Jew, when gathered to his fathers, is to be buried in Jerusalem. Thither they return from Spain and Portugal, from Egypt and Barbary, and other countries among which they have been scattered; and when, after all their longings, and all their struggles up the steep of life, we see them poor, and blind, and naked in the streets of their once happy Zion, he must have a cold heart that can remain untouched by their sufferings, without uttering a prayer that the light of a reconciled countenance would shine on the darkness of Judah, and the day-star of Bethlehem arise in their hearts.

'The Jews are the best oicerones in Jerusalem, because they generally give the ancient names of places, which the guides and interpreters belonging to the different convents do not. They are not forward in presenting themselves, and must generally be sought for.'

**HEAD AND RELIC TRADE.**—In Jerusalem, there is scarcely any trade, and but few manufactures; the only flourishing one is that of crucifixes, chaplets, beads, shells and relics, of which whole cargoes are shipped from Jaffa, for Italy, Spain, and Portugal. The shells are of the kind called mother-of-pearl, ingeniously though coarsely sculptured into various shapes. Those of the largest size, and the most perfect, are formed into clasps for the zones of the Greek women. Such clasps are worn by the ladies of Cyprus, Crete, Rhodes, and other islands of the Archipelago. All these, after being purchased, are taken to the church of St. Sepulchre, where they undergo the process of benediction or consecra-

tion, and are then fit for use. In like manner, beads and crosses purchased at Loretto, are placed in a wooden bowl belonging to the house of the Virgin, to be consecrated for the purpose of being worn as amulets. The beads are manufactured either from date stones, or from a very hard kind of wood called *Mecca fruit*; when first wrought, it appears of the color of box; it is then dyed yellow, black, or red. They are of various sizes; the smaller are the most esteemed, on account of the greater number used to fill a string; and rosaries sell at higher prices when they have been long worn, because the beads acquire a polish by friction. Strings of beads are in request equally among the Moslems and the Christians. The custom of carrying them appears to have been in use long before the Christian era, and still prevails in the East. This is but one instance among many, of the Heathen origin of the Romish customs. The shell worn as a badge by pilgrims, had probably a similar origin: it was an ancient symbol of Astarte, the Syrian Venus. Rosaries and amulets are made also of the black fetid lime-stone of the Dead Sea, to be worn as a charm against the plague. Amulets of the same mineral substance have been found in the chambers below the pyramids of Sakhara, in Upper Egypt; the effluvia is owing to the presence of Sulphuretted hydrogen. The Armenians and the Jews are the chief traders in these sacred wares.

MOUNT SION. The Armenian convent, with its church and gardens, occupies the whole of that part of Mount Sion which is now within the walls; the greater part is now excluded from the city; and for the best description of this interesting site, we must avail ourselves of Dr. Richardson's Travels.

'Passing out by Zion's gate, or as it is more frequently denominated, the gate of David, the first object that meets the eye of the traveller, is a long, dingy looking Turkish mosque, situated on the middle of Mount Zion. It is called the mosque of the prophet David, and is said to be built over his tomb, which is still exhibited in the interior, and is held in the greatest possible veneration by the Mussulmans. The Santones, belonging to the mosque in Mount Zion, are the most powerful in Jerusalem. Part of this building was anciently the church of the Cœnaculum, where our Saviour ate the last supper with his disciples; and I was shewn into an upper room in the front of the building, which both the Santon and the Ciceroni affirmed to be the identical room in which this memorable event to which the christian world owes the institution of the Holy Sacrament of the Supper took place. I should probably have believed them, had I not learnt from higher authority, that thirty-nine years thereafter, not only the walls, but every house in Jerusalem, had been rased from its foundation, and the ground ploughed up by the Roman soldiers, in order that they might discover the treasures which they supposed the unfortunate Jews had hidden under their feet.

'To the right of the mosque, and between it and the gate of the city, there is a small Armenian chapel, built on the spot where for-

merly stood the palace of Caiaphas. It is remarkable for nothing but that the stone which closed up the door of the holy sepulchre is built in an altar at the upper end of it, and exposed in several places to be kissed and caressed, like other precious relics. It is an unpolished block of compact lime-stone, the same with the rock on which the city stands, and does not, like the block of polished marble in present use, carry in its face the refutation of its once having served the office assigned to it, though I confess there is almost as little probability that it ever did.

A few paces to the west of the chapel, there is a Christian burying ground; and among the lettered tomb-stones are several inscribed in the language of our own country. They record the names and cover the ashes of Englishmen, who are reported to have met their deaths in a way not very creditable to the Franciscan convent. A little to the south of this is shown the place where the Virgin Mary expired; and on the north side of the gate is shown—what? the place where the cock crew to Peter.

Such is the sum total of the information which the traveller receives from his guide respecting the topography of this interesting spot, Mount Zion. At the time when I visited this sacred ground, one part of it supported a crop of barley, another was undergoing the labor of the plough, and the soil turned up consisted of stone and lime mixed with earth, such as is usually met with in the foundations of ruined cities. It is nearly a mile in circumference, is highest on the west side, and towards the east, falls down in broad terraces on the upper part of the mountain, and narrow ones on the side, as it slopes down towards the brook Kedron. Each terrace is divided from the one above it by a low wall of dry stone, built of the ruins of this celebrated spot. The terraces near the bottom of the hill are still used as gardens, and are watered from the pool of Siloam. They belong chiefly to the inhabitants of the small village of Siloa, immediately opposite. We have here another remarkable instance of the special fulfilment of prophecy: 'Therefore shall Zion for your sakes be ploughed as a field, and Jerusalem shall become heaps.'—Micah iii. 12.

Mount Zion is considerably higher than the ground on the north, on which the ancient city stood, or that on the east leading on to the valley of Jehoshaphat, but has very little relative height above the ground on the south and on the west, and must have owed its boasted strength principally to a deep ravine, by which it is encompassed on the east, south, and west, and the strong high walls and towers by which it was enclosed and flanked completely round. This ravine, or valley, as the term has been rendered, though the word trench or ditch would have conveyed a more correct idea of its appearance, seems to have been formed by art on the south and on the west, the surface of the ground on each side being nearly of equal height, though Mount Zion is certainly the highest, yet so little so that it could not have derived much additional strength from its elevation. The breadth of this ditch is



stated by Strabo, to be about 150 feet, and its depth, or the height of Mount Zion above the bottom of the ravine, to be about sixty feet. The measurement, in both instances, is nearly correct, and furnishes one among many proofs that we derive from other sources, that the places now called by these names are the same as those that were anciently so denominated. The bottom of this ravine is rock, covered with a thin sprinkling of earth, and, in the winter season, is the natural channel for conveying off the water that falls into it from the higher ground; but, on both sides, the rock is cut perpendicularly down, and most probably it was the quarry from which the greater part of the stones were taken for building the city. The precipitous edge of the ravine is more covered with earth on the side of Mount Zion than on the other side, which is probably owing to the barbarous custom of razing cities from their foundations, and tumbling both earth and stone into the ditch below. The loose stones have been all removed from it for building the present city. This ravine extends further north than the present wall of the city, and ends in a gradual slope of deep earth, so as to countenance the opinion that it once extended further than it does now.'

The Mount of Olives forms part of a ridge of lime-stone hills, extending to the north and the south-west. Pococke describes it as having four summits. On the lowest and most northerly of these, which, he tells us, is called *Sulman Tashy*, the stone of Solomon, there is a large domed sepulchre, and several other Mohammedan tombs. The ascent to this point, which is to the north-east of the city, he describes as very gradual, through pleasant corn-fields planted with olive trees. The second summit is that which overlooks the city: the path to it rises from the ruined gardens of Gethsemane, which occupy part of the valley. About half way up the ascent is a ruined monastery, built as the monks tell us, on the spot where our Saviour wept over Jerusalem. From this point, the spectator enjoys, perhaps, the best view of the Holy City. On reaching the summit, an extensive view is obtained towards the east, embracing the fertile plain of Jericho, watered by the Jordan, and the Dead Sea, enclosed by mountains of considerable grandeur. Here there is a small village, surrounded by some tolerable corn-land. This summit is not relatively high, and would more properly be termed a hill, than a mountain; it is not above two miles distant from Jerusalem. At a short distance from the summit is shown the supposed print of our Saviour's left foot—Chateaubriand says the mark of the right was once visible, and Bernard de Breidenbach, *saw* it in 1483—this is the spot fixed upon by the mother of Constantine, as that from which our Lord ascended, and over which she accordingly erected a church, and monastery, the ruins of which still remain. Pococke describes the building, which was standing in his time, as a small Gothic chapel, round within, and octagon without, and tells us that it was converted into a mosque. The Turks, for a stipulated sum, permit the Christian pilgrims to

take an impression of the foot-print in wax or plaster, to carry home. 'Twice,' says Dr. Richardson, 'I visited this memorable spot, and each time it was crowded with devout pilgrims, taking casts of the holy vestige. They had to purchase permission of the Turks; but, had it not been in the possession of the Turks, they would have had to purchase it from the more mercenary and not less merciless Romans or Greeks.' On Ascension eve, the Christians come and encamp in the court, and that night they 'perform the offices of the Ascension.' Here, however, as with regard to Calvary, and almost all the supposed sacred places, superstition has blindly followed the blind. That this is *not* the place of the Ascension, is certain from the words of St. Luke, who says that our Lord led out his disciples '*as far as Bethany*, and lifted up his hands, and blessed them. And it came to pass, while he blessed them, he was parted from them, and carried up to heaven.' (Acts i.)

Bethany is a small village to the east of the Mount of Olives, on the road to Jericho, not further from Jerusalem than the pinnacle of the hill. There are two roads to it; one passes over the Mount of Olives; the other, which is the shorter and easier, winds round the eastern end, having the greater part of the hill on the north or left hand, and on the right the elevation called by some writers the Mount of Offence, which is, however, very little above the level of the valley of Jehoshaphat. The village of Bethany is small and poor, and the cultivation of the soil is much neglected; but it is a pleasant and somewhat romantic spot, sheltered by Mount Olivet on the north, and abounding with trees and long grass. The inhabitants are Arabs. Here they show the ruins of a sort of castle as the house of Lazarus, and a grotto as his tomb, which, of course is much frequented by pilgrims. On the eminence above is a small Turkish mosque. The house of Simon the leper, of Mary Magdalene, and of Martha, who, it seems, did not reside with her brother, and the identical fig-tree which our Lord cursed, are among the monkish curiosities of the place.

The third summit of the hill is further towards the south. Here Pócocke noticed two heaps of ruins, one of which, the Arabs told him, had been a convent of Armenians. The fourth summit, still further south, had also an Armenian convent: it was called, he says, by the Arabs, *Gorek-Nertebet*.

Dr. Clarke has described some subterranean chambers on the highest summit of Mount Olivet, which are not noticed by any preceding traveller. One of them, he says, has the shape of a cone of immense size, the vertex alone appearing level with the soil, and exhibiting a small circular aperture like the mouth of a well; the sides extending below to a great depth. These were lined with a hard, red stucco, like the substance covering the walls of the subterranean galleries in the Isle of Aboukir. Dr. Clarke calls this place a crypt and a subterranean pyramid, and supposes it may have been appropriated to the idolatrous worship of Ashtaroth at

an early period of the Jewish history, and subsequently made a receptacle for the bones of men.

The valley of Jehoshaphat, which lies between this mountain and the hills on which Jerusalem is built, is still used as a burial-place by the modern Jews, as it was by their ancestors. It is, generally speaking, a rocky flat, with a few patches of earth here and there, about half a mile in breadth from the Kedron to the foot of Mount Olivet, and nearly of the same length from Siloa to the garden of Gethsemane. It is filled with tombs everywhere dug in the rock, some of them large, indicating the superior condition of their ancient possessors, but the greater part are small and of the ordinary size. Many of the stones are covered with Hebrew inscriptions; and, to the learned in Rabbinical lore, this ancient grave-yard would furnish an interesting field for investigation. The Jews have a tradition, evidently founded on taking literally the passage, Joel iii. 12, that this narrow valley will be the scene of the final judgment. The prophet Jeremiah evidently refers to the same valley under the name of the valley of the son of Hinnom, or the valley of Tophet, the situation being clearly marked as being by the entry of the east gate.

### BETHLEHEM.

From the scene of our Lord's crucifixion and ascension, the pilgrim proceeds to visit the place of his nativity. There are two roads from Jerusalem to Bethlehem. That which is used at present is the shortest; the old road is more to the west. Passing out of the Jaffa gate, the traveller turns to the left, and, descending the sloping bank into the ravine, leaves on his right the pool of Hezekiah; he then ascends the rocky flat on the other side, and proceeds in a south-west direction, over rocky and barren ground, exhibiting, in a few cultivated patches, some scanty crops of grain, and in other parts, a covering of grass and wild flowers. The first part of the road possesses little interest. The ruined town of Simeon, the Greek monastery of Elias, and the tomb of Rachel, are pointed out by the guides: the last is a Turkish oratory, with a rounded top, like the whitened sepulchre of an Arab sheikh, and the Turks are said to have a superstitious regard for the spot as a burial-place. Dr. Clarke describes the first view of Bethlehem as imposing. The town appears covering the ridge of a hill on the southern side of a deep and extensive valley, and reaching from east to west. The most conspicuous object is the monastery erected over the supposed 'Cave of the Nativity'; its walls and battlements have the air of a large fortress. From this same point, the Dead Sea is seen below on the left, seemingly very near, 'but,' says Sandys, 'not so found by the traveller; for these high, declining mountains are not to be directly descended.' The road winds round the top of a valley which tradition has fixed on as the scene of the angelic vision which announced the birth of our Lord to the

shepherds; but different spots have been selected, the Romish authorities not being agreed on this head.

The village of Bethlehem contains about 300 inhabitants, the greater part of whom gain their livelihood by making beads, carving mother-of-pearl shells with sacred subjects, and manufacturing small tables and crucifixes, all which are eagerly purchased by the pilgrims. The monks of Bethlehem claim also the exclusive privilege of marking the limbs and bodies of the devotees with crosses, stars, and monograms, by means of gunpowder; a practice borrowed from the customs of heathenism, and noticed by Virgil and Pomponius Mela. Pococke says: 'It is remarkable that the Christians at Jerusalem, Bethlehem, St. John's and Nazareth, are worse than any other Christians. I was informed that the women of Bethlehem are very good; whereas those at Jerusalem are worse than the men, who are generally better there than at the other places.'

At about an hour's distance to the south of Bethlehem, are the pools of Solomon. They are three in number, of an oblong figure, and are supported by abutments. The antiquity of their appearance entitles them, Dr. Richardson thinks, to be considered as the work of the Jewish monarch: 'like everything Jewish,' he says, 'they are more remarkable for strength than for beauty.' They are situated at the south end of a small valley, and are so disposed on the sloping ground, that the waters of the uppermost may descend into the second, and those of the second into the third. That on the west is nearest the source of the spring, and is about 480 feet long; the second is about 600 feet in length, and the third about 660; the breadth of all three being nearly the same, about 270 feet. They are lined with a thick coat of plaster, and are capable of containing a great quantity of water, which they discharge into a small aqueduct that conveys it to Jerusalem. This aqueduct is built on a foundation of stone: the water runs through round earthen pipes, about ten inches in diameter, which are cased with two stones, hewn out so as to fit them, and they are covered over with rough stones, well cemented together. The whole is so much sunk into the ground on the side of the hills round which it is carved, that in many places nothing is to be seen of it. In time of war, however, this aqueduct could be of no service to Jerusalem, as the communication could be easily cut off. The fountain which supplies these pools, is at about the distance of 140 paces from them.

### THE DEAD SEA.

This celebrated lake, which the prevailing passion for the marvellous long invested with imaginary horrors, and of which the natives themselves still speak with a degree of terror, has received different names expressive of its character and origin. In Scripture, it is called the Sea of the Plain; the Salt Sea, and the East

Sea. By Josephus, and the Greek and Roman writers, it is spoken of under the appellation of Lake Asphaltites, that is, the Bituminous Lake. St. Jerome styles it the Dead Sea, because, according to the tradition, nothing could live in it. The Arabs call it *El Amout* (the dead), and *Bahr Lenth*, or the Sea of Lot; and the Turke, according to Chateaubriand, *Ula Deguisi*. It is a lake lying between two ranges of mountains, which enclose it on the east and the west; on the north it receives the Jordan from the plain of Jericho; while, on the south, it is equally open, and yet it has no outlet for its waters. Reland, Pococke, and other travellers, have supposed that it must throw off its superfluous waters by some subterraneous channel; but, although it has been calculated that the Jordan daily discharges into it 6,090,000 tons of water, besides what it receives from the Arnon and several smaller streams, it is now known, that the loss by evaporation is adequate to explain the absorption of the waters. Its occasional rise and fall at certain seasons, is doubtless owing to the greater or less volume which the Jordan and the other streams bring down from the mountains.

The Jordan, at its embouchure, is deep and rapid, rolling a volume of waters from two to three hundred feet in width, with a current so violent, that an expert swimmer, who attended Mr. Jolliffe, found it impracticable to cross it. Dr. Shaw describes it, indeed, as not more than thirty yards broad, and Maundrell, as only about twenty yards over; but they speak of its appearance at some distance from the mouth, where the pilgrims bathe. The former affirms that it runs about two miles an hour,—while the latter speaks of its violent and turbid current, 'too rapid to be swam against.' It was the old opinion, that the waters of the river passed through the lake without mingling with it; and 'I thought I saw,' says Pococke, 'the stream of a different color.' The fact is, that the water of the lake is clear and of the color of the sea, while that of the Jordan is muddy, and of course discolours the lake with its yellow current.

The specific gravity of the waters of the Dead Sea is supposed to have been much exaggerated by the ancient writers, but their statements are now proved to be by no means very wide of the truth: Pliny says, that no living bodies would sink in it; and Strabo, that persons who went into it were borne up to their middle. Josephus states, that Vespasian tried the experiment, by ordering some persons who could not swim, to be thrown into the water with their hands tied behind them, and that they all floated, as if impelled upwards by a subterranean current. Maundrell says; 'Being willing to make an experiment of its strength, I went into it, and found it bore up my body in swimming with an uncommon force. But as for that relation of some authors, that men wading into it were buoyed up to the top as soon as they go as deep as the navel, I found it by experiment not true.'

The question of its specific gravity, has been set at rest by the

chemical analysis of the waters made by Dr. Marcet, and published in the London Philosophical Transactions for 1807. In 1778, Messrs. Lavoisier, Macquer, and Le Sage had concluded, by experiment, that a hundred pounds of the water contain forty-five pounds six ounces of salt; that is, six pounds four ounces of common marine salt, and thirty-eight ounces of marine salt with an earthly base. But Dr. Marcet's more accurate analysis has determined the specific gravity to be 1,211, (that of fresh water being 1000,) a degree of density not to be met with in any other natural water; and it holds in solution the following salts, in the stated proportions to 100 grains of the water:

Muriate of lime	3,920 grains.
Muriate of magnesia.	10,246
Muriate of soda	10,360
Sulphate of lime	0,054
	<hr/> 24,580

So that the water of the lake contains about one-fourth of its weight of salts, supposed in a state of perfect desiccation; or if they be desiccated at the temperature of 180° on Fahrenheit's scale, they will amount to forty-one per cent. of the water. Its other general properties are, that, 1. As stated by all travellers, it is perfectly transparent. 2. Its taste is extremely bitter, saline, and pungent. 3. Re-agents demonstrate in it the presence of the marine and sulphuric acids. 4. It contains no alumine. 5. It is not saturated with common salt. 6. It did not change the colors of the infusions commonly used to ascertain the prevalence of an acid or an alkali, such as litmus, violet and tumeric.

The water of the Jordan, when analysed, exhibited results strikingly dissimilar. It is soft, has no saline taste, and 500 grains evaporated at 200°, left 0,8 grains of dry residue: that is, only 1-300 part of the proportion of solid matter that is contained in the water of the lake. Carbonate of lime was detected in the water of the river, of which there is no trace in the salt water; and two other precipitates were produced, one of them magnesian. It is impossible to account for this remarkable difference, on any other principle than that which refers the origin of the lake to the convulsion recorded in the Scripture narrative.

The Scriptural account is explicit, that 'the Lord rained upon Sodom and upon Gomerrah brimstone and fire from heaven;' which we may safely interpret as implying a shower of inflamed sulphur, or nitræ. At the same time it is evident, that the whole plain underwent a simultaneous convulsion, which seem referrible to the consequences of a bituminous explosion. In perfect accordance with this view of the catastrophe, we find the very materials, as it were, of this awful visitation still at hand in the neighboring hills; from which they might have been poured by the agency of a thun-

der-storm, without excluding a supernatural cause from the explanation of the phenomena. Captains Irby and Mangles collected, on the southern coast, lumps of nitre and fine sulphur, from the size of a nutmeg up to that of a small hen's egg, which, it was evident from their situation, had been brought down by the rain: 'their great deposit must be sought for,' they say, 'in the cliff.'

In the plain bordering upon the lake are high rushes, which give way to a variety of bushes and wild plants; among others, several species of acacia, the dwarf mimosa, the tamarisk, the wild cotton plant, the doom, and the oschar. Captain Mangles describes also a very curious tree, which abounds here; its fruit resembling the currant in its growth, but with the color of a plum; having a strong aromatic taste resembling mustard, and, if taken in any quantity, producing the same irritability in the nose and eyes. The leaves have the same pungent flavor in a less degree. On the borders of the Derrah, they observed another peculiar shrub, its branches inclining downwards, of a dull green, with little or no foliage; the fruit about the size of an almond in its green husk, and not very dissimilar in color, but seamed or ribbed. When ripe, it becomes soft and juicy, like a green gage, but the skin retains its roughness. It contains a stone. The taste has a sort of sweetness, mixed with a strong bitter; the smell is sickly and disagreeable. It is said by the natives to be poisonous, children being reported to have frequently been disordered, and even to have died, after eating it.

It was long a received tradition, that no living thing could pass over this lake without being suffocated by the vapors, and that no fish could endure the deadly waters. Captains Irby and Mangles found on the shores a great number of dead locusts, which might almost seem, they remark, to lend some countenance to the tale, were it not a spectacle sufficiently common upon other shores, as about El Arisch, and in Sicily. These, however, had not become putrid, nor had they any smell, as when cast up by any other sea, being completely penetrated and encrusted with salt; and they had lost their color. Of the fabulous nature of one part of the tradition, the travellers had ocular demonstration; first, in a pair of Egyptian geese, and afterwards in a flight of pigeons which passed over the sea. And Maundrell saw several birds, he does not say of what species, flying about and over the sea, without any visible harm. The latter part also of the report, he adds, 'I have some reason to suspect as false; having observed among the pebbles on the shore two or three shells of fish, resembling oyster-shells. These were cast up by the waves, at two hours' distance from the mouth of the Jordan; which I mention, lest it should be suspected that they might be brought into the sea that way.'

### LAKE OF TIBERIAS.

This inland sea, or more properly lake, which derives its several names, the Lake of Tiberias, the Sea of Galilee, and the Lake of Gennesareth, from the territory which forms its western and south-western border, is computed to be between seventeen and eighteen miles in length, and from five to six in breadth. The mountains on the east come close to its shore, and the country on that side has not a very agreeable aspect: on the west, it has the plain of Tiberias, the high ground of the plain of Hutin, or Hottein, the plain of Gennesareth, and the foot of those hills by which you ascend to the high mountain of Saphet. To the north and south it has a plain country, or valley. There is a current throughout the whole breadth of the lake, even to the shore; and the passage of the Jordan through it is discernible by the smoothness of the surface in that part. Various travellers have given a very different account of its general aspect. According to Captain Mangles, the land about it has no striking features, and the scenery is altogether devoid of character. 'It appeared,' he says, 'to particular disadvantage to us after those beautiful lakes we had seen in Switzerland; but it becomes a very interesting object, when you consider the frequent allusions to it in the Gospel narrative.' Dr. Clarke, on the contrary, speaks of the uncommon grandeur of this memorable scenery. 'The Lake of Gennesareth,' he says, 'is surrounded by objects well calculated to heighten the solemn impression made by such recollections, and affords one of the most striking prospects in the Holy Land. Speaking of it comparatively, it may be described as longer and finer than any of our Cumberland and Westmoreland lakes, although perhaps inferior to Loch Lomond. It does not possess the vastness of the Lake of Geneva, although it much resembles it in certain points of view. In picturesque beauty, it comes nearest to the Lake of Locarno in Italy, although it is destitute of anything similar to the islands by which that majestic piece of water is adorned. It is inferior in magnitude, and the height of its surrounding mountains, to the Lake of Asphaltites.' Mr. Buckingham may perhaps be considered as having given the most accurate account, and one which reconciles in some degree the differing statements above cited, when, speaking of the lake as seen from Tel Hoom, he says—that its appearance is grand, but that the barren aspect of the mountains on each side, and the total absence of wood, give a cast of dulness to the picture; this is increased to melancholy by the dead calm of its waters, and the silence which reigns throughout its whole extent, where not a boat or vessel of any kind is to be found.

There were fleets of some force on this lake during the wars of the Jews with the Romans, and very bloody battles were fought between them. Josephus gives a particular account of a naval engagement between the Romans under Vespasian, and the Jews who



had revolted during the administration of Agrippa Titus and Trajan were both present, and Vespasian himself was on board the Roman fleet. The rebel force consisted of an immense multitude, who, as fugitives after the capture of Tarichæa by Titus, had sought refuge on the water. The vessels in which the Romans defeated them, were built for the occasion, and yet were larger than the Jewish ships. The victory was followed by so terrible a slaughter of the Jews, that nothing was to be seen, either on the lake or its shores, but the blood and mangled corpses of the slain, and the air was infected by the number of dead bodies. Six thousand five hundred persons are stated to have perished in this naval engagement and in the battle of Tarichæa, besides twelve hundred who were afterwards massacred in cold blood by order of Vespasian, in the amphitheatre at Tiberias, and a vast number who were given to Agrippa as slaves.

Of the numerous towns which formerly flourished on the shores of this lake, few traces now remain, and there is some difficulty in determining even the sites of those whose names have come down to us. About an hour and a quarter to the northward of Tiberias, following the course of the lake, is a small Mahomedan village called Migdal, (which signifies in Hebrew a tower,) where there are considerable remains of a very indifferent castle, that may possibly have given its name to the place. It is seated near the edge of the lake, beneath a range of high cliffs, in which are seen small grottoes or caves. The ruins consist of an old square tower and some larger buildings of rude construction, apparently ancient. It is generally supposed that this is the Magdala of the Gospels, and the Migdal of the earlier Scriptures.

### THE VALE OF NAZARETH.

The delightful vale of Nazareth is described as a circular basin encompassed by mountains. 'It seems,' says Dr. Richardson, 'as if fifteen mountains met to form an enclosure for this delightful spot: they rise round it like the edge of a shell to guard it from intrusion. It is a rich and beautiful field in the midst of barren mountains: it abounds in fig-trees, small gardens, and hedges of the prickly pear; and the dense, rich grass affords an abundant pasture. The village stands on an elevated situation, on the west side of the valley. The convent stands at the east end of the village, on the high ground, just where the rocky surface joins the valley.'

Nasara, or Naszera, is one of the principal towns in the pashalik of Acre. Its inhabitants are industrious, because they are treated with less severity than those of the country-towns in general. The population is estimated at 3000, of whom 500 are Turks; the remainder are Christians. There are about ninety Latin families, according to Burekhardt; but Mr. Connor reports the Greeks to be the most numerous: there is, besides, a congregation of Greek Catholics, and another of Maronites. The Latin convent is a very

spacious and commodious building, which was thoroughly repaired and considerably enlarged in 1730. The remains of the more ancient edifice, ascribed to the mother of Constantine, may be observed in the form of subverted columns, with fragments of capitals and bases of pillars, lying near the modern building. Pococke noticed, over a door, an old alto-relief of Judith cutting off the head of Holofernes. Within the convent is the Church of the Annunciation, containing the house of Joseph and Mary, the length of which is not quite the breadth of the church, but it forms the principal part of it. The columns and all the interior of the church are hung round with damask silk, which gives it a warm and rich appearance. Behind the great altar, is a subterranean cavern, divided into small grottoes, where the Virgin is said to have lived. Her kitchen, parlor, and bed-room are shown, and also a narrow hole in the rock, in which the child Jesus once hid himself from his persecutors. The pilgrims who visit these holy spots, are in the habit of knocking off small pieces of stone from the walls, which are thus considerably enlarging. In the church a miracle is still exhibited to the faithful. In front of the altar are two granite columns, each two feet one inch in diameter, and about three feet apart. They are supposed to occupy the very places where the angel and the Virgin stood at the precise moment of the annunciation. The innermost of these, that of the Virgin, has been broken away, some say by the Turks, in expectation of finding treasure under it; 'so that,' as Maundrell states, 'eighteen inches' length of it is clean gone between the pillar and the pedestal.' Nevertheless it remains erect, suspended from the roof, as if attracted by a loadstone. It has evidently no support below; and, though it *touches the roof*, the hierophant protests that it has none above. 'All the Christians of Nazareth,' says Burckhardt, 'with the friars of course at their head, affect to believe in this miracle, though it is perfectly evident that the upper part of the column is connected with the roof.' 'The fact is,' says Dr. Clarke, 'that the capital and a piece of a shaft of a pillar of grey granite have been fastened on to the roof of the cave; and so clumsily is the rest of the *hocus pocus* contrived, that what is shown for the lower fragment of the same pillar resting upon the earth, is not of the same substance, but of Cipolino marble. About this pillar, a different story has been related by almost every traveller since the trick was devised. Maundrell and Egmont and Heyman were told, that it was broken, in search of hidden treasure, by a pasha who was struck with blindness for his impiety. We were assured that it separated in this manner, when the angel announced to the Virgin the tidings of her conception. The monks had placed a rail, to prevent persons infected with the plague from coming to rub against these pillars; this had been for many years their constant practice, whenever afflicted with any sickness. The reputation of the broken pillar, for healing every kind of disease, prevails all over Galilee.'

Burckhardt says, that this church, next to that of the Holy Sep-

ulchre, is the finest in Syria, and contains two tolerable good organs. Within the walls of the convent are two gardens, and a small burying-ground: the walls are very thick, and serve occasionally as a fortress to all the Christians in the town. There are at present eleven friars in the convent; they are chiefly Spaniards. The yearly expenses of the establishment are stated to amount to upwards of 900*l.*, a small part of which is defrayed by the rent of a few houses in the town, and by the produce of some acres of corn-land: the rest is remitted from Jerusalem. The whole annual expenses of the *Terra Santa* convents are about 15,000*l.*, of which the Pasha of Damascus receives about 12,000*l.* The Greek convent of Jerusalem, according to Burckhardt's authority, pays much more, as well to maintain its own privileges, as with a view to encroach upon those of the Latins.

### MOUNT TABOR.

Mount Tabor, having been pitched upon as the scene of the Transfiguration, ranks among the sacred places to which pilgrims repair from Nazareth. It is minutely described by both Pococke and Maundrell.

The road from Nazareth lies for two hours between low hills; it then opens into the Plain of Esdraelon. At about two or three furlongs within the plain, and six miles from Nazareth, rises this singular mount, which is almost entirely insulated, its figure representing a half-sphere.' 'It is,' says Pococke, 'one of the finest hills I ever beheld, being a rich soil that produces excellent herbage, and is most beautifully adorned with groves and clumps of trees. The ascent is so easy, that we rode up the north side by a winding road. Some authors mention it as near four miles high, others as about two: the latter may be true, as to the winding ascent up the hill. The top of it, which is about half a mile long, and near a quarter of a mile broad, is encompassed with a wall, which Josephus built in forty days: there was also a wall along the middle of it, which divided the south part, on which the city stood, from the north part, which is lower, and is called the *meidan*, or place, being probably used for exercises when there was a city here, which Josephus mentions by the name of Ataburion. Within the outer wall on the north side, are several deep fosses, out of which, it is probable, the stones were dug to build the walls; and these fosses seem to have answered the end of cisterns, to preserve the rain-water, and were also some defence to the city. There are likewise a great number of cisterns under ground, for preserving the rain-water. To the south, where the ascent was most easy, there are fosses cut on the outside, to render the access to the walls more difficult. Some of the gates also of the city remain: as the gate of the winds, to the west; and the arched gate, a small one to the south. Antiochus, King of Syria, took the fortress on the top of his hill. Vespasian also got possession of it; and after that, Jose-

thus fortified it with strong walls. But what has made it more famous than any thing else, is the common opinion, from the time of St. Jerome, that the transfiguration of our Saviour was on this mountain. On the east part of the hill are the remains of a strong castle; and within the precinct of it is the grot, in which are three altars in memory of the three tabernacles which St. Peter proposed to build, and where the Latin fathers always celebrate on the day of the Transfiguration. It is said, there was a magnificent church built here by St. Helena, which was a cathedral when this town was made a bishop's see. There was formerly a convent of Benedictine monks here; and, on another part of the hill, a monastery of Basilians, where the Greeks have an altar, and perform their service on the festival of the Transfiguration. On the side of the hill, they show a church in a grot, where they say Christ charged his disciples not to tell what things they had seen till he was glorified.

#### ROUTE TO NABLOUS AND TIBERIAS.

For some hours after leaving Jerusalem, the route to the north lies over a rugged and mountainous country, which, though susceptible of cultivation by being terraced, now presents an aspect of frightful nakedness and sterility. The road, if it may be called such, is rough and stony; and no object of interest occurs before the traveller arrives at Beer, which is three hours and a half (about ten miles) from Jerusalem. The name of the place is derived from its well, which *Beer* signifies. It seems, Dr. Richardson says, to have been once a place of considerable consequence; and Maundrell supposed it to be the Beer referred to, Judges ix. 21, to which Jotham fled from the revenge of Abimelech. 'It is supposed also,' he adds, 'to be the same with Michmash, 1 Sam. xiv. 5.' But Reland, on the authority of Eusebius, places Michmas near Jerusalem, in the direction of Rama. Close to the well, which is at the bottom of the declivity on which stands the village, are the mouldering walls of a ruined khan; and on the summit of the hill, two large arches still remain of a ruined convent—Maundrell calls it an old church, and says it was built by the empress Helena, in commemoration of the Virgin's coming as far as this spot in quest of the child Jesus, as related Luke x. 24! A little beyond Beer two roads meet: that on the right conducts to Nablous. 'After two hours' travelling along the same rocky path,' says Dr. Richardson, 'we passed the village of Einbroot, which is finely situated on our left, on the top of a hill. The adjoining valley is well cultivated, and the sides of the hills are raised in terraces, and planted with the olive, the vine, and the fig-tree. On approaching Einbroot, the guide of the caravan called out for us to march in close order. Here it was reported that we were in danger of being attacked by banditti, and that the muskets were seen pointed at us over the stones; but upon the guide, who rode considerably in advance,

informing them who the party were whom they meant to attack, that they travelled under the protection of a firman from the Porte and the pasha of Acre, and, what was, perhaps, as powerful a dissuasive, that we were armed, and could fight as well as they could, they withdrew their weapons of offence, and remained quiet. A little further on we passed two villages on our left, the names of which I did not learn. The road lay partly through a rocky dell, and partly through a narrow cultivated valley; but the general aspect of the country was particularly wild and barren. The next village that we passed was called Engeeb, also on the top of a hill on the left, and the adjoining ground was well cultivated in the same manner. After this, we passed a fine looking picturesque hill, every way susceptible of cultivation, at the foot of which we entered the small valley of Khan Leban, where we found the ruins of an old khan, with many mouldering vaults, and a plentiful spring of clear water, much infested with small worms. It derives its name from a village called Leban, at the other end of the valley. It is eight hours from Jerusalem. Here we pitched our tents for the night, the place being agreeable and convenient, with plenty of grass for the animals.

Maundrell describes this spot as 'a delicious vale,' and says, that either Khan Leban, which is on the eastern side, or the village which is on the opposite side, is supposed to be the site of the ancient Lebonah. He notices also a village called Cinga, lying at some distance on the traveller's left, about three quarters of an hour south of Khan Leban; and, between this and Engeeb, he describes a very narrow valley between two high rocky hills, where he found the ruins of a village and a 'monastery,' supposed to mark the site of the ancient Bethel, which was on the confines of Ephraim and Benjamin. The monastery is almost sufficient to awake the suspicion that this was not Bethel: possibly, the Arabs, who are the best authorities, could decide the point, as they have almost uniformly preserved the ancient names. But neither the empress Helena nor the monks ever thought of consulting them.

'Having passed the village of Leban,' continues Dr. Richardson, 'the road, winding with the valley, proceeds in a northern direction. Here the ground is rich and well cultivated, and several ploughs were busily engaged. We next passed the village of Zanio, and travelling for a considerable time over a mountainous and barren track, descended into a fertile valley, where we found the reapers cutting down an excellent crop of barley. Here are three comfortable looking villages near each other; the first is named Cousa, the second Anabous, and the third Couara. We are now about two hours and a half from Nablous. The ground in this valley is remarkably stony, but well cultivated. Having ascended the hill, we passed on our right the tomb of the patriarch Joseph, situated in the plain below. It is now a Turkish oratory with a white-washed dome, like the tomb of his mother Rachel on the

road between Jerusalem and Bethlehem. At a little distance, in the same plain, and nearer to the mountain, probably Gerizim, we saw another building resembling the tomb of an Arab sheikh, and said to be Jacob's Well. At the top of the hill we opened a fine olive grove, with a stream of water in front of it. Here being anxious to have a view of Jacob's Well, we proceeded across the field in that direction, but had not advanced far before we were assailed by prohibitory calls from a small fort on the side of the hill; to which, however, as we did not understand them, we, at first, paid no attention; but the calls were speedily followed by the discharge of a musket fired across our front. This arrested our progress, and drew our attention to the place from which it came. Upon this the calls were redoubled, and our guide coming up informed us, that we were addressed by the guard who was placed there to keep the pass, and that we could not proceed to Jacob's Well. We had previously been informed that the Arabs around Nablous were in arms against the governor; but this is the only specimen of Turkish vigilance that occurred to us on the road. We saw no symptoms of rebellion among the Arabs.

Here again the question presents itself, Is this the well of the patriarch whose name it now bears? Who gave it this name, the natives or the Christians? Dr. Clarke, who can be sometimes incredulous, but at other times very confiding, says, that 'this is allowed by all writers' to be the spot referred to, John iv. 6, where our Saviour had the memorable conference with the Samaritan woman. The concurrence of 'all writers' cannot throw the least light on the fact; as one after another has but repeated the legend handed down from the days of that 'great and devout patroness of the Holy Land,' as honest Maundrell slyly calls the empress Helena, who is said to have built a church over the well of which 'a few foundations' were then remaining. This faithful traveller, however, notices as a difficulty, the distance at which this well is situated from the modern city. 'If it should be questioned,' he says, 'whether this be the very well that it is pretended for, or no, seeing it may be suspected to stand too remote from Sychar for women to come so far to draw water, it is answered, that probably the city extended further this way in former times than it does now, as may be conjectured from some pieces of a very thick wall still to be seen not far from hence. These pieces of wall are but a sorry voucher for the supposed extension of the city eastward, so far beyond the present walls; and they are quite as likely to be the work of the said empress. The simple circumstance of the distance of this well from Sychar (above a mile), would not, however, disprove its identity, were there no springs nearer the town, or were there no other reason for hesitation. But Mr. Buckingham states, that, on inquiring of the inhabitants for the Bir (or Beer) el Yakoab, he was told by every body that this was *in the town*. As this information did not correspond to the 'described place of the well,' it led to further explanation; and, 'at length by telling the story attached to it, we found,' he says, 'it was known here only by

the name of *Beer Samareea*, or the Well of Samaria.' It is not a little singular, that this traveller should not, so far as appears, have visited what now bears the name of Jacob's Well. That name may have been arbitrarily or ignorantly given to it by the Turks; otherwise, it would be highly deserving of attention. It is plain, from the narrative of St. John, that Jacob's Well, where our Lord rested while the disciples went forward into the city to buy meat, was at some short distance from Sychar; and consequently, the Beer el Yakoab, if absolutely within the town, can hardly be entitled to the appellation. Mr. Buckingham notices, however, a *third* well, 'not far from the Well of Samaria,' called the *Beer Yusef*, or Joseph's Well, over which there is a modern building; and 'it is said to be even at this day frequented for water from Nablous.' The well of Samaria might, therefore, he remarks, also have been so from Sychar. But if this third well derives its name from the patriarch Joseph, to whom Jacob gave the parcel of ground containing the place of sepulchre 'before the city,' it is very possible that this *Beer Yusef* may be the well on which our Lord sat: it would be correctly referred to as Jacob's Well by the evangelist, although it bore the name of his son. It must be left to future travellers to decide on the probabilities of the case. In the mean time, we return to the account given us of the 'Well of Samaria.'

Having procured a *Christian* boy for a guide, Mr. Buckingham left Nablous by the eastern gate, and after passing along the valley for about a quarter of an hour, he arrived at the spot where the pass opens into a more extensive vale, the mountains on the other side of the Jordan being in sight on the left. Here he had on each side grottoes and tombs, which we shall presently notice; and from hence, in another quarter of an hour, he reached the Well of Samaria. 'It stands,' he says, 'at the commencement of the round vale which is thought to be the parcel of ground bought by Jacob, and which, like the narrow valley west of Nablous, is rich and fertile. The mouth of the well itself had an arched or vaulted building over it; and the only passage down to it at this moment is by a small hole in the roof, scarcely large enough for a moderate-sized person to work himself through.' Taking off his large Turkish clothes, our traveller descended with a lighted taper, but even then did not get down without bruising himself against the sides. 'Nor was I,' he says, 'at all rewarded for such an inconvenience by the sight below. Landing on a heap of dirt and rubbish, we saw a large, flat, oblong stone, which lay almost on its edge across the mouth of the well, and left barely space enough to see that there was an opening below. We could not ascertain its diameter, but, by the time of a stone's descent, it was evident that it was of considerable depth, as well as that it was perfectly dry at this season (Feb.), the fall of the stone giving forth a dead and hard sound.' Maundrell removed the 'broad flat stone' which lay on the mouth, and examined the well more minutely. 'It is,' he says, 'dug in a firm rock, and contains about three yards in diameter and thirty-five in depth; *five of which we found full of water.*' This was the

latter end of March. 'This confutes a story,' he adds, 'commonly told to travellers, who do not take the pains to examine the well, viz. that it is dry all the year round, except on the anniversary of that day on which our blessed Saviour sat upon it, but then bubbles up with abundance of water.' One would imagine, that the 'old stone vault' built over the spot was designed to protect the legend, rather than the well, by concealing it from examination. If this were really the well to which the inhabitants of Sychar were accustomed to resort, it would be difficult to account for its having been thus abandoned.

Nablous (as it is pronounced by the Turks and Arabs, or Naplosa, as the Christians who speak Italian call it—a corruption of Neapolis, or New Town) is one of the few places in the Holy Land, the ancient name of which appears to be superseded by that which it has received from its foreign conquerors. Its position identifies the site, beyond all question, with the Shechem of the Old Testament \* and the Sychar (or Sichem, as Jerome contends it should be) of the New, the ancient capital of Samaria. Josephus says that the natives called it Mabartha, but by others it was commonly called Neapolis. Few places exceed it in the romantic beauty of its position. It is situated in a narrow valley between Mount Ebal and Mount Gerizim, having the former on the north, and the latter on the south; but it is correctly described by Maundrell as lying under Mount Gerizim, being built at the acclivity on the southern side of the valley. It was from Mount Gerizim that God commanded the blessings to be pronounced upon the children of Israel, and from Mount Ebal the curses, respectively annexed to obedience and disobedience, on their entering the promised land by way of Jericho and Ai: half of the tribes were to be encamped over against the one hill, and half against the other. † The modern town consists of two long streets, running through the centre of the valley, and intersected by several smaller ones, mostly crossing them at right angles. At the present time it is populous and flourishing, and the environs bear the marks of opulence and industry, being adorned with small gardens that skirt the banks of the stream by which the valley is watered. 'We passed,' says Dr. Richardson, 'its scarcely moistened bed, and a little above the town saw an ancient bridge with twelve arches, which were still capable of maintaining the communication between the two sides of the valley.' Dr. Clarke, in approaching it from Jennin, was struck with its flourishing appearance. 'There is nothing in the Holy Land finer,' he affirms, 'than the view of Napolose from the heights around it. As the traveller descends towards it from the hills, it appears luxuriantly embosomed in the most delightful and fragrant bowers, half concealed by rich gardens, and by stately trees collected into groves all around the bold and beautiful valley in which it stands.' 'Within the town are

\* Gen. xxxiii. 18; xxxvii. 13; Josh. xxiv. 33; Judges ix. 15, 18; Josh. viii. 33.

† Deut. xi. 29; xxvii.



six mosques, five baths, one Christian church of schismatic Greeks, an excellent covered bazar for fine goods, and an open one for provisions, besides numerous cotton-cloth manufactories, and shops of every description.' Dr. Clarke says, the principal trade is in soap; but the manufactures of the town supply a very widely extended neighborhood. The watermelons too of Nablous are equal, he says, to those of Jaffa. The resident population is supposed to amount to 10,000, though Mr. Buckingham thinks this is rather over-rating the numbers. These are almost all Mahomedans, the Greek Christians scarcely amounting, he says, to fifty. But Mr. Connor states that there are about a hundred. They have one church and two priests. Though the commerce is so considerable, there are few Jews, owing perhaps to a religious prejudice against the place; Mr. Buckingham says, none among the permanent residents,—Mr. Connor says, 'about fifteen individuals.' Of the Samaritans, of whom a respectable remnant existed here so late as the time of Maundrell's journey, about a century ago, the reverend gentleman last mentioned gives the following interesting account. 'I immediately made inquiry about the Samaritans. My host stepped out, and fetched their priest: he sat with me some time: his name is Shalnor ben Tabiah: he is a native of Napolose, and is about forty years of age.

'There are about forty Samaritans in Napolose. They have but one synagogue in the town, where they have service every Saturday. Four times a year they go, in solemn procession, to the old synagogue on Mount Gerizim; and, on these occasions, they go up before sunrise, and read the law till noon. On one of these days of they kill six or seven rams. The Samaritans have one school in Napolose, where their language is taught. The head of the sect resides in Paris.

'I accompanied the priest to his house, and sat a long time with him. There were several Jews present: they seem to live on friendly terms with the Samaritans here. The priest showed me part of the first volume of the English Polyglott, mentioned by Maundrell: it consisted of about a dozen tattered leaves. He showed me also a manuscript Samaritan Pentateuch, with an Arabic version at its side; this version, however, is not used in their synagogue. He afterwards took me to see the synagogue, making me first take off my shoes: it is a small gloomy building. I observed a number of copies of the Samaritan Pentateuch, carefully enveloped in linen, and laid on a shelf in the synagogue. Expressing a wish to see the ancient manuscript, said by the Samaritans to be 3500 years old, the priest paused, and hesitated some time. I pressed him. Having laid aside his upper garments, he at length entered the sanctuary, and produced the venerated manuscript. It is well written on vellum, in the Samaritan character, and is preserved in a tin roller: it bears the marks of age, and is rather tattered. The priest would not permit me, nor any one present to touch it. He was very inquisitive about the Samaritans who, he had heard, were in England.'

The accounts which we have of the ancient Samaritans, (or Cutheans, as they are called by the Jewish writers, from the founder of the sect, Sanballad, a Cuthite,) have come to us chiefly through their inveterate enemies the Jews; whose contempt and hatred were apparently excited by their being a mixed race, of doubtful genealogy, and schismatical in their creed. In rejecting the whole of the Old Testament excepting the Pentateuch, they were countenanced by the Sadducees. Our Lord, however, declares, that they worshipped they knew not what; \* which seems to imply that, although they cherished, in common with the Jews, the expectation of a Messiah, their worship had still an idolatrous tincture: they 'feared the Lord,' but, if they did not still 'serve graven images,' like their ancestors, † they did not worship God as a Spirit. Notwithstanding their enmity against the Jews, they joined in revolt against the Romans, and shared in the calamities of the guilty nation. After the fall of Jotapata and Jaffa, eleven thousand six hundred of them are stated to have posted themselves on Mount Gerizim; as if, like the Jews of Jerusalem, trusting to the protection of their temple, or resolved to perish on the sacred spot. The Roman general Cerealis, with 600 horsemen and 300 footmen, blockaded them here; and after inviting them to surrender, which they obstinately refused, put the greater part to the sword.

Five centuries after the Christian era, the Samaritans, who still remained a distinct, though motley race, had so increased in strength that they rose in arms, under the standard of a desperate leader, to protect themselves against the persecution of the emperor Justinian. They were, says Gibbon, 'an ambiguous sect, rejected as Jews by the Pagans, by the Jews as schismatics, and by the Christians as idolaters. One hundred thousand, it has been computed, perished, or were sold as captives in the Samaritan war, which converted the once fertile province into a wilderness. A remnant, however, have always rallied on this consecrated spot, under the shadow of Mount Gerizim. In 1676, a correspondence took place between their chief priest at Nablous and the learned Scaliger, on the differences between the Samaritan and Hebrew Pentateuchs, in the course of which information was elicited respecting the opinions then held by this ancient sect. The summary of their creed was to this effect: That they believe in God, and in the laws of his servant Moses; they practise circumcision; keep the sabbath with all the rigor of a penance; observe the passover, the pentecost, the feast of tabernacles, and the great fast of expiation most strictly; and never offer any sacrifice but on Mount Gerizim. The head of their religion must reside at Shechem. In 1697, Mr. Maundrell had a personal conference with the Samaritan chief-priest, on the subject of a singular discrepancy between the text of the Samaritan Pentateuch and the received Hebrew text. The passage in question occurs Deut. xxvii. 4: 'Therefore it shall be, when ye be gone over

\* John iv. 22.

† 2 Kings xvii. 41.

Jordan, that ye shall set up these stones, which I command you this day' (inscribed with the words of the law) 'in *Mount Ebal*; and thou shalt plaster them with plaster; and there shalt thou build an altar unto the Lord thy God.' The Samaritan Pentateuch has *Mount Gerizim* in this place; and the chief-priest contended that the Jews had maliciously altered the Hebrew text out of odium to the Samaritans: 'putting, for Gerizim, Ebal, upon no other account but only because the Samaritans worshipped in the former mountain, which they would have for that reason not to be the true place appointed by God for his worship and sacrifice. To confirm this, he pleaded that Ebal was the mountain of cursing, Deut. xi. 29, and in its own nature an unpleasant place; but, on the contrary, Gerizim was the mountain of blessing, by God's own appointment, and also in itself fertile and delightful; from whence he inferred a probability that this latter must have been the true mountain appointed for those religious festivals, Deut. xxvii. 4, and not (as the Jews have corruptly written it) Hebal. We observed that to be in some measure true which he pleaded concerning the nature of both mountains; for, though neither of the mountains has much to boast of as to their pleasantness, yet, as one passes between them, Gerizim seems to discover a somewhat more verdant, fruitful aspect than Ebal. The reason of which may be, because fronting towards the north, it is sheltered from the heat of the sun by its own shade; whereas Ebal, looking southward, and receiving the sun that comes directly upon it, must, by consequence, be rendered more scorched and unfruitful. The Samaritan priest could not say that any of those great stones which God directed Joshua to set up, were now to be seen in Mount Gerizim; which, were they now extant, would determine the question clearly on his side.'

Both Mount Gerizim and Mount Ebal deserve to be explored. Their altitude appeared to Mr. Buckingham to be nearly equal, not exceeding 7 or 800 feet from the level of the valley, which is itself elevated. Captains Irby and Mangles are the only modern travellers who appear to have ascended either. They say: 'We went to the summit of Mount Gerizim, and found the ruins of a large town, with a tank near a conspicuous sheikh's tomb.' They do not appear, however, to have bestowed much attention on these ruins, among which some traces of their boasted temple must, one would imagine, be still discernible; nor do they notice any synagogue there. Mount Ebal they did not ascend.\* In the Itinerary of Benjamin of Tudela, the Cuthceans are stated to offer sacrifice on Mount Gerizim, on an altar constructed of stones brought from the Jordan by the children of Israel. He describes this mountain as full of fountains and gardens, and Ghebal (Ebal) as arid and rocky. As a topographical authority, the Itinerary is unquestionable. With regard to the point at issue, it may be thought only to state

\* Dr. Richardson says: 'On Mount Ebal we saw a considerable village, and a large building like a ruined fort. But he did not ascend its summit.'

the matter agreeably to the Samaritan tradition. There is certainly much plausibility in the arguments in favor of the Samaritan texts; which, in many other instances of variation from the received text, is admitted by Biblical critics to preserve the genuine reading. It is very probable, that a further collation of Hebrew MSS. will throw some light on the question.

The town is governed by a Mutsellim, or Beg, subject to the Pasha of Damascus, and having under his command about 400 Arnaut soldiers. The prevailing costume is the Turkish dress: the women wear a colored veil, concealing the whole face, as in the towns of the Yemen; the scarf thrown over the head and shoulders is of a yellowish white, with a deep red border. Nablous is in long. 35° 22' E. lat. 32° 16' N.; and is thirty-four miles N. of Jerusalem.

The only object of antiquity noticed by travellers within the town, is the eastern front of a ruined church, the site of which is now occupied by one of the mosques. It presents a fine pointed arch, supported by Corinthian columns, the upper part highly ornamented, in the style of some of the Saracen doors in Cairo: within are seen plain granite pillars; and the whole exhibits, Mr. Buckingham tells us, a singular mixture of orders, in the most grotesque taste.

Just without the city, towards Jerusalem, is a small mosque, said to have been built over the sepulchre purchased by the patriarch Jacob, and bearing the name of Joseph's Sepulchre: it is at the foot of Mount Gerizim. Mr. Buckingham, noticing the Mahomedan buildings here, 'either mosques or tombs,' says, they are now called *Mahmoodes*. 'On the left,' he adds, 'at the foot of Mount Ebal, were several well-hewn grottoes in the rock, some with arched, and others with square doors, most probably ancient sepulchres.' These he had no time to examine, although the most interesting antiquities of the place. That these caves may have been used as places of retreat or ascetic seclusion, is very probable; but there is no room to doubt their sepulchral character. They may, or may not, be of remote antiquity; but of this description, and not far distant, must have been the burial-place of Joseph, whose bones were brought up out of Egypt to be laid in Shechem. To the practice of burying in the sides of mountains, we have repeated references in the Old Testament. Abraham was buried in the Cave of Machpelah before Mamre; Joshua, on the north side of the Hill of Gaash in Ephraim;\* Eleazer, the son of Aaron, in a hill within the same district; and Aaron himself in Mount Hor.† The 'parcel of ground' given by Jacob to his son, is generally supposed to be the 'wide field,' as Maundrell terms it, into which the Valley of Sichein opens at the Well of Samaria; and which he describes as 'exceeding verdant and fruitful,' being watered with a fresh stream, rising between it and the town. The

\* Gen. xiv. 9; Josh. xxiv. 29, 30.

† Num. xx. 25; Deut. x. 6.

precise limits of this purchase it would be ridiculous to attempt to ascertain. All that we know is, that it was near Sichar, 'before,' or eastward of the city; that it contained a well—a possession of the greatest importance in those parts; and, like 'the field of Ephron' purchased by Abraham,\* a burying-place. A place of burial seems to have given a sacredness to the property in which it was situated, and to have rendered the inheritance inalienable; it established a right of proprietorship, and, connected with this, what we should call a *right of common* to the neighboring pastures.† Thus, we find the sons of Jacob leaving their father's residence in Hebron, to feed his flocks in Shechem,‡ by virtue of this right, long after he had been compelled to remove from this neighborhood. The burial-place was, no doubt, (as that of Abraham and that of Joshua were,) at the 'end of the field,' on the 'border of the inheritance,' which must have been Mount Gerizim itself; and, if the mosque should prove to conceal the entrance to a lateral excavation or grotto, of the kind universally chosen for sepulchres of distinguished persons by the ancient Jews, it may possibly mark the identical place 'in Shechem where the bones of Joseph were laid.'

Next to Jerusalem itself, this is, perhaps, the most interesting spot in the Holy Land, as connected with those events transacted in the fields of Sichem, which, from our earliest years, are remembered with delight. 'Along the valley,' says Dr. Clarke, 'we behold a company of Ishmaelites coming from Gilead, as in the days of Reuben and Judah, 'with their camels, bearing spicery, and balm, and myrrh,'§ who would gladly have purchased another Joseph of his brethren, and conveyed him, as a slave, to some Potiphar in Egypt. Upon the hills around, flocks and herds were feeding as of old; nor, in the simple garb of the shepherds of Samaria, was there any thing to contradict the notions we may entertain of the appearance formerly exhibited by the sons of Jacob.' 'The morning after our arrival, we met caravans coming from Grand Cairo, and noticed others reposing in the large olive-plantations near the gates.'

Leaving Nablous, the road lies along the narrow vale, and, in about three-quarters of an hour, conducts the traveller to a copious spring of good water, called Beer-sheba. This, Dr. Richardson says, is the broadest and best cultivated part of the valley; he saw the natives busily engaged (May) in reaping a scanty crop of barley. Maundrell notices a village on the left of the road (going northwards) called *Barseba*, deriving its name, no doubt, from this well; and, half an hour further, another village which he calls *She-rack*. After leaving Beer-sheba, Dr. Richardson's account makes the road ascend. 'In about a quarter of an hour,' he says, 'we reached the top of the hill; and as we wound our way down the other side, had an excellent view of the delightfully situated Sebaste.

\* Gen. xxiii. 17.

† Gen. xxxv. 5.

‡ Gen. xxxvii. 29—34.

§ Gen. xxxvii. 25.

In a few minutes we passed a ruined aqueduct of Roman architecture, and pitched our tents at the bottom of the hill, nearly opposite to its unworthy successor, a poor village of the same name; having travelled this day about nine hours. This makes the distance from Khan Leban about twenty-seven miles, but, allowing for deviations from the direct track, twenty-four miles, and sixteen hours, or forty-eight miles, from Jerusalem. Josephus, however, makes it but one day's journey from the capital.\* It is six miles beyond Napolose; and if the distance of the latter place is correctly given by our authorities, it cannot exceed forty miles.

Sebaste is the name which Herod gave to the ancient Samaria, the imperial city of the ten tribes, in honor of Augustus (Sebastos) Cæsar, when he rebuilt and fortified it, converting the greater part of it into a citadel, and erecting here a noble temple. 'The situation,' says Dr. Richardson, 'is extremely beautiful, and strong by nature; more so, I think, than Jerusalem. It stands on a fine, large, insulated hill, compassed all around by a broad deep valley; and when fortified, as it is stated to have been by Herod, one would have imagined that, in the ancient system of warfare, nothing but famine could have reduced such a place. The valley is surrounded by four hills, one on each side, which are cultivated in terraces up to the top, sown with grain, and planted with fig and olive trees, as is also the valley. The hill of Samaria likewise rises in terraces to a height equal to any of the adjoining mountains.

'The present village is small and poor, and after passing the valley, the ascent to it is very steep. Viewed from the station of our tents, it is extremely interesting, both from its natural situation, and from the picturesque remains of a ruined convent, of good Gothic architecture.

'Having passed the village, towards the middle of the first terrace, there is a number of columns still standing. I counted twelve in one row, besides several that stood apart, the brotherless remains of other rows. The situation is extremely delightful, and my guide informed me, that they belonged to the serai, or palace. On the next terrace there are no remains of solid building, but heaps of stone and lime and rubbish mixed with the soil in great profusion. Ascending to the third or highest terrace, the traces of former buildings were not so numerous, but we enjoyed a delightful view of the surrounding country. The eye passed over the deep valley that encompasses the hill of Sebaste, and rested on the mountain beyond, that retreated as they rose with a gentle slope, and met the view in every direction, like a book laid out for perusal on a reading-desk. This was the seat of the capital of the short-lived and wicked kingdom of Israel; and on the face of these mountains the eye surveys the scene of many bloody conflicts and many memorable events. Here these holy men of God, Elijah

\* Josephus Antiq. book xv. chap. 2.

† Ibid.

and Elisha, spoke their tremendous warnings in the ears of their incorrigible rulers, and wrought their miracles in the sight of all the people.

'From this lofty eminence we descended to the south side of the hill, where we saw the remains of a stately colonnade that stretches along this beautiful exposure from east to west. Sixty columns are still standing in one row. The shafts are plain, and fragments of Ionic volutes, that lie scattered about, testify the order to which they belonged. These are probably the relics of some of the magnificent structures with which Herod the Great adorned Samaria. None of the walls remain.'

Mr. Buckingham mentions a current tradition, that the avenue of columns formed a part of Herod's palace. According to his account, there were eighty-three of these columns erect in 1816, besides others prostrate; all without capitals. Josephus states, that, about the middle of the city, Herod built 'a sacred place, of a furlong and a half in circuit, and adorned it with all sorts of decorations; and therein erected a temple, illustrious for both its largeness and beauty.' It is probable that these columns belonged to it. On the eastern side of the same summit are the remains, Mr. Buckingham states, of another building, 'of which eight large and eight small columns are still standing, with many others fallen near them. These also are without capitals, and are of a smaller size and of an inferior stone to the others.' 'In the walls of the humble dwellings forming the modern village, portions of sculptured blocks of stone are perceived, and even fragments of granite pillars have been worked into the masonry.' The Gothic convent referred to by Dr. Richardson, is the ruined cathedral, attributed, like every thing else of the kind in Palestine, to the Empress Helena. It stands east and west, and is about 100 feet in length, by 50 in breadth. 'On the south side are high, slender buttresses; and on a piece of building without this, is a sloping pyramidal mole, constructed of exceedingly large stones. The northern wall is quite plain; the eastern front is semi-circular, with three open and two closed windows each, contained in arches divided from each other by three Corinthian columns. The interior of the eastern front has a pointed arch, and columns of no known order; though the capitals approach nearer to the Corinthian than any other. The eight small arches which go round the tops of the windows within, are semicircular, and have each at their spring the capital of a column, but no shaft attached to it; the great arch of the recess is pointed, and the moulding that passes round it is fantastic in the extreme. Among other things seen there, are the representations of scaly armor, an owl, an eagle, a human figure, and an angel, all occupying separate compartments, and all distinct from each other.

'The exterior of the eastern front presents a still more singular mixture of style, as the pointed and the round arch are both used in the same range, and the ornaments of each are varied. In the

lower cornice are human heads, perhaps in allusion to the covered head of the Baptist; and there are here as fantastic figures as on the inside, the whole presenting a strange assemblage of incongruous ornaments in the most wretched taste.

The masonry appears in some parts to have been exceedingly solid, in others only moderately good, and in some places weak and paltry; and at the west end, in a piece of building, apparently added since the original construction of the church itself, are seen several blocks of sculptured stone, apparently taken from the ruins, and worked into the present masonry there.

On the inside of this ruined edifice is a small mosque, erected over the supposed dungeon in which St. John was executed; and an Arab family, who claim the guardianship of this sanctuary, have pitched their dwelling on the south-west angle of the great church, where it has the appearance of a pigeon-house. On learning that I was a Moslem, we were all admitted into this mosque, which we entered with becoming reverence. They have collected here the white marble slabs, found amid the ruins of the church, to form a pavement; and in one part we noticed three large pieces, with sculptured circles and bands on them, which were set up in the wall as tablets.

The mosque itself is a small oblong room, with steps ascending to an oratory, and its only furniture is a few simple lamps and some clean straw mats for prayer, the recess of the Caaba being in the southern wall. From the mosque, we descended by a narrow flight of steps to the subterranean chamber or dungeon of St. John, which had all the appearance of having been an ancient sepulchre. It was not more than ten feet square; and had niches, as if for the reception of corpses, in arched recesses on each side. There was here, too, one of those remarkable stone doors, which seem to have been exclusively appropriated to tombs, resembling exactly in form and size those described in the Roman sepulchres at Oom Kaïs. The pannelling, the lower pivot, and the sill in the ledge for receiving the bolt, were all still perfect; but the door was now unhung, and lay on its side against the wall.

In the court at the west end of the church are 'two apertures leading down to a large subterranean reservoir for water, well stuccoed on the inside, and during the rains often filled to the brim.'

The modern Sebaste is governed by its own sheikh, who is himself a husbandman: the natives pronounce the name of the place *Subusta*.

The route taken by Dr. Richardson now passes over the mountain to the east of Sebaste, and then descends to a ruined building called by the natives Beit Emireen (the house of the two princes), near a village of the same name, by a stream of water. 'Leaving this valley,' he continues, 'we crossed the mountain to the left, and after travelling about an hour along a very rough and stony ravine, we came to the village of Gibba, which is surrounded with olive and pomegranate trees, the latter of which were in full blow, and occu-



pies a lofty station to overlook a small valley. From Gibba we proceeded along the valley to Sannour, which is a fort erected on an insulated mountain that springs up in the middle of the valley. It is commonly called Khallah Giurali, or Fort Jurali, from Giurali, (Jerar ?) the name of the chief who commands the country. A few miles further on, we came to Abata, a pleasant village on our right, and similarly situated to Gibba, among olive and pomegranate trees. The inhabitants are said to be particularly hospitable and kind to strangers. We did not stop to put their hospitality to the test, but continued our route along the narrow dell, and having crossed another mountain on the left, opened the beautiful vale of Esdraclon, and the town of Jenin, pleasantly situated at the foot of the mountain. We descended to a level piece of stony ground which bore a tolerably good crop of thistles, and pitched our tents on the outside of the town, having travelled this day about eight hours and a half.

Sannour, or Sanhcor, called by Dr. Clarke Santorri, deserves a more particular notice. He makes it three hours, or nine miles, from Jenin. The castle, which he describes as very much resembling the old castellated buildings in England, is very strong: it held out against Djezzur Pasha, when he held the pashalic of Damascus, for two months, and he was compelled at last to raise the siege. In the time of the Crusades it must have been impregnable. 'Yet,' says Dr. Clarke, 'there is no account of it in any author; and certainly it is not of later construction than the period of the holy wars.' If the learned traveller has given the present name correctly, it would seem, both from the meaning and the language of the word, *holy tower*, to date from the Crusades. But, doubtless, the site is noticed by the older writers, under its original name. Their supposed silence, however, tempted Dr. Clarke to hazard the strange conjecture that it might be the site of Samaria; for, in his gallop through the Holy Land, he forgot to visit, or overlooked Sebaste! The hill commands the view to the northward of a fine broad valley, bounded by other hills on every side, about two miles in breadth and five in length: the valley southward is narrower, and both are cultivated. The ascent is steep on all sides. The walls of the town are strongly built, 'apparently,' says Mr. Buckingham, 'of old Saracenic work,' and in circuit less than half a mile, with two gates in opposite quarters. The houses are well built, but the streets are narrow; the inhabitants all Mahommedans. The governor (then Hadje Ahraed Jerar) is tributary to Damascus, but absolute within his own territory, which includes several towns and villages, with extensive lands around them, of which he is as it were the feudal lord. Hadje Ahmed is described as of a most amiable and patriarchal character; and the aspect of the country bore the most pleasing marks of the benign influence of his mild and paternal government.

Jennin, or Genin, (pronounced Djenneen,) the ancient Gimsa, or Gimsæ, and supposed to be the Geman of Josephus, was the fron-

der town of Samaria on the border of Galilee; being situated at the entrance of the great plain. It is mentioned by Josephus as the scene of a battle between the Galileans, who were going up to Jerusalem to the feast of tabernacles, and the natives. It is now a mere village, containing about 800 inhabitants; but there are evidences of its having once been of much greater extent. There are the remains of a Christian convent on the outside of the walls, now partly occupied by a Turkish cemetery. Within the town, Dr. Clarke observed the ruins of a palace and a mosque, with marble pillars, fountains, and even piazzas, some in a very perfect state. An Arabic inscription over one of these buildings, purports that it was erected by an individual of the name of Selim. As a fence to the gardens, Dr. Clarke noticed the *Indian Fig*, growing to so enormous a size, that the stem was larger than a man's body; and its gaudy blossoms made a most splendid show in the midst of its bristly spines.

The route from Jennin to Nazareth lies directly across the plain of Esdraelon, a distance of seven hours, or twenty-one miles. Nearly in the middle of the plain is the line of separation between the pashalics of Acre and of Damascus. The road to Tiberias, which we are now to follow, proceeds eastward along this beautiful vale; watered, in this part, by a fertilizing stream, which, says Dr. Richardson, 'we crossed and re-crossed several times in our march. In four hours after leaving Jennin, we came to the source, where it issues in a large current from the rock, and is called *El Geleed* or, *the cold*. In two hours more we came to Bisan. The delightful vale of Esdraelon is but thinly inhabited, and not half cultivated or stocked with cattle. We did not pass a single village, and saw but few Bedoween encampments till we came near to Bisan. As we approached this miserable village, we gradually withdrew from the vale, and got upon an elevated rocky flat, covered with a thin and meagre sprinkling of earth; the vegetation which it bore was scanty, and quite brown from the lack of moisture. The valley of the Jordan began to open on our view, and, before we came up to the village, we passed the remains of a Roman fortress and a Roman theatre, with many vaults\* and columns, on the left of our route. The village itself is a collection of the most miserable hovels, containing about 200 inhabitants; and, on looking at their wretched accommodation, and comparing it with a Bedoween encampment that was spread out at a little distance in the valley, we were not surprised to hear that, in these countries, the *dwellers in tents* look on the *dwellers in towns* as an inferior class of beings.'

The young emir, or chief of the Arabs of Bisan, who waited on Lord Belmore, arrayed in his black abba and yellow boots, is described as a mild-tempered, intelligent youth; but the rest of the inhabitants had the most ruffian-like and depraved appearance.

Bisan, the Bethsan or Bethshan of Scripture, † is the Scythopolis

\* Supposed to be the ruins of subterranean granaries.

† Josh. xvii. 11; 1 Sam. xxxi. 12; 1 Kings iv. 12. It was one of the towns which Ma-

of the Greek and Roman writers. It was the largest city of the Decapolis, and the only one on that side of the Jordan. The theatre is quite distinct, and measures about 180 feet in length: it is completely filled with weeds. In one of the most concealed vomitoria, Captain Mangles states that they found twenty-four human skulls, with other bones. A viper was basking in one of the skulls, with his body twisted between the eyes,—‘a good subject for a moralizer.’ In some of the tombs which lie to the N. E. of the acropolis, without the walls, there remained sarcophagi; and, in a few instances, the doors were still hanging on their ancient hinges of stone: they observed also niches of a triangular shape for lamps. Two streams run through the ruins of the city, almost insulating the acropolis: over the one to the S. W. is a fine Roman bridge, beyond which may be seen the paved way which led to the ancient Ptolemais (Acre). These streams afterwards unite, and are crossed by another bridge, having one high arch in the centre, and two smaller ones, which have been walled up: along the outer edge of this bridge, the wall of the city was continued; and on the hill, near the arch, the ruins of one of the gates of the city are distinguishable; there are some prostrate columns of, the Corinthian order. The acropolis is a high circular hill, on the top of which are traces of the ancient walls of the fortress. Dr. Richardson noticed masses of ejected lava scattered round the village; and the mountains, he says, have the appearance of extinct volcanoes.

Pursuing the route to Tiberias, up the delightful plain of the Jordan, the traveller has on his left Mount Gilboa, which comes close to Bisan, and bounds the plain on the west. The natives still call it Djebel Gilbo. It is a lengthened ridge; rising up in peaks, about 800 feet above the level of the road, and probably 1000 feet above the level of the Jordan. On the east, the plain is bounded by a high mountain range, which forms part of Mount Gilead, so that the view on both sides is extremely interesting; and at the time of Dr. Richardson's journey (May), rich crops of barley, apparently over-ripe, added to the beauty of the landscape. After riding for nearly three hours, the route led them to the banks of the Jordan, where it is crossed by a large stone bridge, consisting of one large and two smaller arches. Here a large khan has been built for the accommodation of travellers who take the road to Damascus through the Decapolis and Mount Gilead. The river at this point is of a considerable depth, and between thirty and forty feet wide; the channel very stony, and the waters of a ‘white sulphureous color,’ but free from any unpleasant smell or taste. Near Bisan, its width is one hundred and forty feet, and the current is much more rapid. Beyond the bridge, the plain of the Jordan narrows into a valley, and the river remains in sight till the traveller arrives at the shores

massek had in Isachar. To the wall of Bethsan the Philistines fastened the bodies of Saul and his three sons, after they had fallen in Mount Gilboa.

of the Lake of Tiberias; a distance of about eight hours, or twenty-four miles from Bisan.\*

Tiberias, still called by the natives Tabaria, or Tabbareeah, was anciently one of the principal towns of Galilee. It was built by Herod the Tetrarch, and named by him in honor of Tiberias, the Roman emperor, with whom he was a great favorite.† Very considerable privileges were granted to those who chose to settle there, in order to overcome the prejudice arising from the city's having been built on a site full of ancient sepulchres; from which circumstance we may infer the existence of a former city in the vicinity; this is supposed to have been the ancient Cinneroth or Kinnereth. Here, during a visit paid to the city by Herod Agrippa, the kings of Comagene, of Emessa, of the lesser Armenia, of Pontus, and of Chalcia, met to do him honor, and were magnificently entertained.‡ After the downfall of Jerusalem, it continued to be, until the fifth century, the residence of Jewish rabbies and learned men; and was the seat of a patriarch, who acted as the supreme judge between persons of his own nation. The office was hereditary, and was supported with some lustre, under the Emperor Hadrian, in the person of Selim III.; but, in the year 429, it was suppressed, after subsisting 350 years, under nine or ten patriarchs. In the sixth century, according to Procopius, Justinian rebuilt the walls. In the seventh, A. D. 640, during the reign of the Emperor Heraclius, the city was taken by the Saracens under Caliph Omar. Yet, in the eighth, it is mentioned in an Itinerary cited by Reland, as still containing many churches and Jewish synagogues. Pococke, without citing his authority, says, that the Jewish rabbins lived here till the eleventh century, but that the Jews had left the place above eight hundred years. It seems doubtful, however, whether it has ever been wholly deserted by them. Tiberias was an ancient seat of Jewish literature. A university was founded here by the patriarch, after the fall of Jerusalem; and it is remarkable, that there is a college of Jews in Tabaria at the present time: it would be very interesting to ascertain the date of its establishment. Dr. Richardson found six rabbies engaged in studying Hebrew folios. 'They occupied two large rooms, which were surrounded with books, and said they spent their time entirely in studying the Scriptures and commentaries thereon. I regretted much,' adds Dr. R., 'that I had not been apprised of this institution at an earlier part of the day. Not having an interpreter with me, I could not turn my short interview to the same advantage that I should otherwise have done.'

The modern town of Tabaria is situated close to the edge of the lake. It has tolerably high but ill-built walls on three of its sides,

\* The river Jordan, on issuing from the Sea of Galilee, flows for about three hours near the western hills: it then turns towards the eastern, on which side it continues its course for several hours, till, at *Korn-el-Homar*, it returns to the western side.

† Joseph. Antiq. lib. xviii. cap. 3; De Bell. lib. ii. cap. 8.

‡ Joseph. Antiq. lib. xix. cap. 7.

flanked with circular towers; on the fourth, it is open to the water. Its figure is nearly quadrangular; according to Pococke, it is about a quarter of a mile in length, and half that in breadth; in circumference, therefore, about three quarters of a mile. Like all Turkish citadels, it has an imposing appearance from without; and its fortifications and circular towers give it more the aspect of a Moorish city than most of the towns of Palestine. But it exhibits the utmost wretchedness within the walls, one-fourth of the space being wholly unoccupied, and the few houses or huts which it contains are not built contiguously. The sheikh's house is described by Van Egmont as tolerably good, and indeed the only building that deserves the name; and even this owes its beauty to the ruins out of which it is built. Adjoining to it is a large handsome structure, which serves as a stable. Near the sheikh's house are the ruins of a very large castle, with some remains of towers, moats, and other works, which probably commanded the harbor. One of these works, facing the lake, has been turned into a mosque. On the rising ground to the northward of the ruin, stands the modern castle, which dates only a few years before the period of Pocock's visit. Hasselquist informs us, that it owes its erection to Sheikh Daker, a native of Tiberias, and at that time independent lord of the place, which he had recently defended against the Pasha of Seide. 'He had no more than six small iron cannon in this work of defence; but he used another method, still more ancient than cannons, for defending forts. He ordered loose stones to be laid on the top of the wall, four feet high, which in case of a siege, might be rolled down, and crush the besiegers.' The marks of the siege were then to be seen on the walls. Pococke, who preceded Hasselquist about thirteen years, was at Tiberias when the fort was building, and they were strengthening the old walls with buttresses on the inside, the sheikh then having a dispute with Pasha of Damascus. 'They have often,' he adds, 'had disputes with the pashas of Damascus, who have come and planted their cannon against the city, and sometimes have beaten down part of the walls, but were never able to take it.' The town has only two gates; one near the sheikh's house, facing the sea; the other, which was very large, is partly walled up, the city on that side being uninhabited. The houses are described by Van Egmont as 'very mean and low cottages, some of stone, and others of dried mud, and can hardly be said to be above the ground. On the terraces, which even the huts in this country are not without, they build tents of rushes.' Mr. Buckingham states, that there are two synagogues near the centre of the town, both of them inferior to that of Jerusalem, though similar in design; and, on the rising ground near the northern quarter, a small, but good bazar, and two or three coffee-sheds.

The only interesting relic of antiquity in the town, is the church dedicated to St. Peter; an oblong square edifice, arched over, said to be on the spot where the house of St. Peter was though St.

Peter lived at Capernaum. It stands at the north-east corner of the town, close to the water's edge, and is described by Mr. Buckingham as a vaulted room, about thirty feet by fifteen, and perhaps fifteen feet in height: over the door is one small window, and on each side four others, all arched and open. The ancient town extended about half a mile further to the south than the present walls, as is indicated by a great number of confused ruins; and Pococke observed, that the suburbs extended still further in the same direction. Near the present town, he says, there are ruins of another church; and further on some signs of a large square building, about which lie several pillars, which might be the house of the government. Captain Mangles states, that 'at the northern extremity of the ruins are the remains of the ancient town, which are discernible by means of the walls and other ruined buildings, as well as by fragments of columns, some of which are of beautiful red granite. This agrees with Van Egmont's representation, that the old city began at some distance to the north of the present town, extending along the side of the lake beyond the Baths of Emmaus, which are about a mile from the modern town, to the south of it. 'In our way thither,' says the last-mentioned traveller, 'we plainly saw the foundations of the old city, and the remains of bulwarks erected on frustums of pillars. In short, the whole road to the bath, and even some distance beyond it, was full of ruins of walls; and near it we saw the ruins of a gate.' These walls were continued to the mountains which confined the city towards the west, so that its breadth could not exceed half a mile. The wall beyond the baths, which runs from the lake to the mountain's side, is, however, supposed by Mr. Banks to be rather the fortification of Vespasian's camp. Pococke places the baths a quarter of a mile south of the walls of old Tiberias. The ancient name of Emmaus, which signifies baths, is still preserved in the Arabic *Hamam*, by which the place is now called. The waters are much resorted to, being esteemed good for all sorts of pains and tumors, and even for the gout. Dr. Richardson found the Pasha of Acre encamped here, with a numerous retinue; having been advised to use the baths, by his medical attendant, who, was a Frank. At a little distance from him, Lady Hester Stanhope had taken up her residence in a mosque. 'Not having any thermometer,' says Dr. R., 'I could not ascertain the temperature of the spring; but it is so hot, that the hand could not endure it; and the water must remain twelve hours in the bath, before it can be used; and then I should consider it as above one 100°. It contains a strong solution of common salt, with a considerable intermixture of iron and sulphur.' Pococke, who brought away a bottle of the waters, says, that they were found to hold a considerable quantity of 'gross fixed vitriol, some alum, and a mineral salt.' He observed a red sediment upon the stones. Van Egmont and Heyman state, that they resemble in quality those of Aix la Chapelle. 'Our curiosity,' they say, 'led us to go into the bath, the

water of which was so hot as not easily to be endured; but, to render it more temperate, we ordered the passage through which it runs into the basin, to be stopped. The inhabitants of Tiberias have built here a small house with a cupola; but there seems to have been formerly a much more splendid edifice, as the baths were very famous. The water rises something higher, whence it is conducted into a stone basin. This water is so salt as to communicate a brackish taste to that of the lake near it.' Hasselquist has given a still more minute account, which Dr. Clarke has evidently overlooked in referring to him. 'The fountain or source,' he says, 'is at the foot of a mountain, at the distance of a pistol-shot from the Lake Gennesareth, and a quarter of a league from the coasts of Tiberias. The mountain consists of a black and brittle sulphureous stone, which is only to be found in large masses in the neighborhood of Tiberias, but in loose stones also on the coast of the Dead Sea, as well as here. They cut millstones out of it in this place, which are sent by water from Acre to Egypt. I saw an incredible quantity of them at Damietta. The spring which comes from the mountain is in diameter equal to that of a man's arm, and there is one only. The water is so hot, that the hand may be put into it without scalding, but it cannot be kept there long: consequently, it is not boiling hot, but the next degree to it. It has a strong sulphureous smell. It tastes bitter, and something like common salt. The sediment deposited by it is black, as thick as paste, smells strongly of sulphur, and is covered with two skins, or cuticles, of which that beneath is of a fine dark-green color, and the uppermost of a light rusty color. At the mouth of the outlet, where the water formed little cascades over the stones, the first-mentioned cuticle alone was found, and so much resembled a *conserva*, that one might easily have taken this, that belongs to the mineral kingdom, for a vegetable production; but, nearer the river, where the water stood still, one might see both skins, the yellow uppermost, and under it the green.' At that time (1750), the waters appear to have been neglected, and the 'miserable bathing house' was not kept in repair.

It seems at first difficult to account for the statement given by this usually correct writer, that there is but one spring, when Captain Mangtes states that there are three; but Mr. Buckingham's minute and lively description explains the apparent discrepancy.

'Leaving the town at the western gate, we pursued our course southerly along its wall, and came to some scattered ruins of the old city of Tiberias; among which we observed many foundations of buildings, some fragments of others still standing, and both grey and red granite columns, some portions of the latter being at least four feet in diameter; but among the whole, we saw neither ornamented capitals nor sculptured stones of any kind, though the city is known to have been a considerable one.

'In our way, we passed an old tree, standing amid these ruins, and observed its branches to be hung with rags of every hue and

color, no doubt the offerings of those who either expected or had received benefit from the springs in the road to which it lay. Throughout the cliffs of the overhanging mountain on the west, are rude grottoes at different heights; and opposite to the tree are two arched caves, one of them having a square door of entrance beneath the arch, and both of them being apparently executed with care. We had not time to examine them, though we conceived them to have been most probably ancient sepulchres.

'In less than an hour after our leaving the town, we arrived at the baths. The present building, erected over the springs here, is small and mean, and is altogether the work of Mahomedans. It is within a few yards of the edge of the lake, and contains a bath for males and a bath for females, each with their separate apartment annexed. Over the door of the former is an Arabic inscription; ascending to this door by a few steps, it leads to an outer room, with an open window, a hearth for preparing coffee, and a small closet for the use of the attendant. Within this is the bath itself, a square room of about eighteen or twenty feet, covered with a low dome, and having benches in recesses on each side. The cistern for containing the hot water is in the centre of this room, and is sunk below the pavement; it is a square of eight or nine feet only, and the spring rises to supply it through a small head of some animal; but this is so badly executed, that it is difficult to decide for what it was intended. My thermometer rose here instantly to 130°, which was its utmost limit; but the heat of the water was certainly greater. It was painful to the hand as it issued from the spout, and could only be borne gradually by those who bathed in the cistern.

'There is here only an old man and a little boy to hold the horses, and make coffee for the visitors; and those who bathe, strip in the inner room, and wash themselves in the cistern, without being furnished with cloths, carpets, cushions, or any of the usual comforts of a Turkish bath. The whole establishment, indeed, is of the poorest kind, and the sight of the interior is rather disgusting than inviting.

'At this bath we met with a soldier whom they called Mahomed Mamlouk, and I learnt that he was a German by birth, having become a Mamlouk and Mahomedan when a boy. He was now the hasnadar or treasurer to the Agha of Tabareeah, and was so completely a Turk as to profess, that he would not willingly return to his native country, even if he could do so under the most favorable circumstances. He spoke the Turkish and Arabic languages equally well; and it was in the latter that we conversed, as he had entirely forgotten his native tongue, though not more than thirty-five years of age.

'Besides the spring which supplies the present baths, there are several others near it, all rising close to the edge of the lake, and all equally hot, finely transparent, and slightly sulphureous, resembling exactly the spring at El-Hama. There are also extensive ruins around, which are most probably the remains of Roman edifices;



though that which has been taken for the remains of a theatre, appears rather to have been the choir of an early Christian church. Among them all, there is nothing, however, either interesting or definite. We quitted this spot to return to the town, and in our way by the bath, saw a party of Jewish women just coming out from the female apartment. Their conversation was in German; and, on inquiry, they said that they had come from Vienna with their husbands, to end their days in the land of their fathers. In our way back from hence, we were met by a party of Moslems, who conceiving me from my dress and white turban, to be of their faith, gave us the usual salute, which I returned without scruple; but our guide was so shocked at the interchange of forbidden salutations between a Christian and a Mohammedan, that he expressed his confidence in its ending in some unlucky accident to us. To avert this, however, from his own head, he took a large stone from the road, and after spitting on it, turned that part towards the north, repeating a short Arabic prayer at the same time. Besides the present incident, I had observed on several occasions, that, in this country, set forms of expressions are regarded as appropriate to men of different faiths, and even different ranks in life; and that nothing is more necessary for a traveller, than to acquaint himself with those minute shades of difference; as they serve, like the watchword of an army, to distinguish friends from foes; and any errors therein might produce the most alarming consequences.

‘On our way we met a Jewish funeral, attended by a party of about fifty persons, all male. A group of half a dozen walked before, but without any apparent regard to order, and all seemed engaged in humming indistinctly hymns, or prayers, or lamentations; for they might have been either, as far as we could distinguish by the tone and the manner of their utterance. The corpse followed, wrapped in linen, without a coffin, and slung on cords between two poles borne on men’s shoulders, with its feet foremost. A funeral service was said over it at the grave, and it was sunk into its mother earth in peace.’

This traveller notices some ancient baths, to the north of Tiberias also, which appear to have escaped the observation of preceding travellers. About an hour from Tiberias, pursuing a northward course along the border of the lake, he came to the remains of three, close to the water’s edge, which he describes as so many large circular cisterns, quite open, and not appearing to have ever been inclosed in a covered building. ‘They were all,’ he continues, ‘nearly of the same size; the one around the edge of which I walked, being eighty paces in circumference, and from twelve to fifteen feet deep. Each of these was distant from the other about one hundred yards, ranging along the beach of the lake, and each was supplied by a separate spring, rising also near the sea. The water was in all of them beautifully transparent, of a slightly sulphureous taste, and of a light-green color, as at the bath near Oom Kais; but the heat of the stream here was scarcely greater than that of the at-

mosphere, as the thermometer in the air stood at 84°, and when immersed in water, rose to 86°. The first of these circular cisterns had a stone bench or pathway running round its interior, for the accomodation of the bathers, and the last had a similar work on the outside; in the latter, a number of small black fish were seen swimming. Each of the baths were supplied by a small aqueduct from its separate spring; and there were appearances of a semicircular wall having inclosed them all within one area.

Mr. Jolliffe reports the estimated number of inhabitants to be 4000, two thirds of which are Jews. Burckhardt's account agrees with this as to numbers; but he makes the proportion of Jews only one fourth.\* There are, he says, from one hundred and sixty to two hundred Jewish families, of which forty or fifty are of Polish origin; the rest are Jews from Spain, Barbary, and different parts of Syria. The quarter which they occupy in the middle of the town, had lately been much enlarged by the purchase of several streets, so that their numbers appear to be on the increase: Tiberias holds out to the Jews peculiar advantages. They enjoy here perfect religious freedom; besides which, Tiberias is one of the four holy cities of the Talmud, the other three being Saphet, Jerusalem, and Hebron. 'It is esteemed holy ground,' Burckhardt states, 'because Jacob is supposed to have resided here; and because it is situated on the Lake of Gennesareth; from which, according to the most generally received opinion of the Talmud, the Messiah is to rise. It is a received dogma, that the world will return to its primitive chaos, if prayers are not addressed to the God of Israel, at least twice a week in the four holy cities. On this account, Jewish devotees from all parts flock to these cities; and three or four missionaries are sent abroad every year, to collect alms for the support of these religious fraternities, who do not fail successfully to plead this imminent danger as an argument for liberal contributions. One missionary is sent to the coasts of Africa from Damietta to Mogadore; another to the coast of Europe from Venice to Gibraltar; a third to the Archipelago, Constantinople and Anatolia; and a fourth through Syria. The charity of the Jews of London is appealed to from time to time; but the Jews of Gibraltar have the reputation of being more liberal than any others, and are stated to contribute from 4 to 5000 Spanish dollars annually. The Polish Jews settled at Tabaria, are supported almost entirely by their rich countrymen in Bohemia and Poland; and the Syrian Jews are said to be very jealous of them. When a fresh pilgrim arrives, bringing a little money with him, the exorbitant demands which are made on him by his brethren, either for rent, or on some other pretence, soon deprive him of it, and leave

\* Mr. Buckingham says, that, according to the opinion of the best informed residents, the population does not exceed 2000 souls, of whom about half are Jews.

† Perhaps not the patriarch, but some great rabbin of that name. Burckhardt speaks of a great rabbin, who, he was informed, lies buried at Tiberias, with 14,000 of his scholars round him!

him a pensioner on his nation. The missionaries generally realize some property, as they are allowed ten per cent. upon the alms they collect. But many of the Jews, who have been led to beg their way to Palestine by their delusive representations, are ill satisfied with the Land of Promise; and some few are fortunate enough to find their way home again. The greater number, however, console themselves with the inestimable advantage of laying their bones in the Holy Land.

The Jewish devotees pass the whole day in the schools or the synagogue, reciting the Old Testament and the Talmud, both of which many of them know entirely by heart. They all write Hebrew; but their learning, Burckhardt says, seems to be on a level with that of the Turks. He mentions some beautiful copies of the Pentateuch, written on a roll of leather, which he saw in the Syrian synagogue: no one could inform him of their age or history. The libraries of the two schools are moderately stocked with Hebrew books, printed chiefly at Vienna and Venice. They observe here, he says, a singular custom in the public service.

'While the rabbin recites the psalms of David, or the prayers extracted from them, the congregation frequently imitate, by their voice or gesture, the meaning of some remarkable passages: for example, when the rabbin pronounces the words, 'Praise the Lord with the sound of the trumpet,' they imitate the sound of the trumpet through their closed fists. When 'a horrible tempest' occurs, they puff and blow to represent a storm; or should he mention the cries of the righteous in distress, they all set up a loud screaming.' And sometimes, we are told, these imitative accompaniments are carried on in a singular sort of fugue or concert; while some are blowing the storm, others having already begun the cries of the righteous!

The Jews marry at a very early age. It is not uncommon, Burckhardt affirms, to see fathers of thirteen years of age, and mothers of eleven. On the occasion of a wedding, they traverse the town in pompous procession, carrying before the bride the plate of almost the whole community; and they feast in the house of the bridegroom for seven successive days and nights. 'The wedding feast of a man who has about 50*l.* a-year, (and no Jew can live with his family on less,) will often cost more than 60*l.*' Yet, few of them are rich, or carry on any merchandise. When Burckhardt was at Tiberias, there were only two Jew merchants resident there, who were men of property; and they were styled by the devotees, *kafers*, or unbelievers. The Rabbin of Tiberias, is under the great Rabbin of Szaffad (Saphet), who pronounces final judgment on all contested points of law and religion.

